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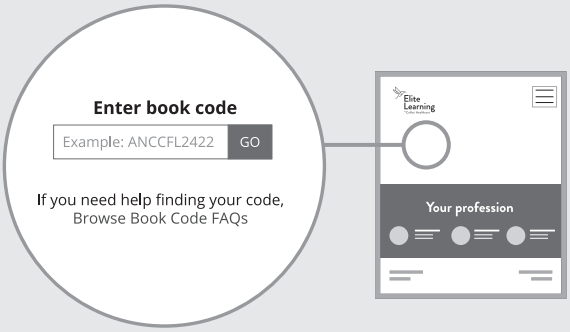

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- Submissions without a valid e-mail will be mailed to the address provided.

Basic Psychiatric Concepts

6 Contact Hours

Release Date: June 1, 2022 **Expiration Date:** June 1, 2025

Faculty

Robyn B. Caldwell, DNP, FNP-BC, earned a Doctor of Nursing Practice (DNP) from Samford University in nursing administration with an emphasis in nursing education in 2013; a post-master's certificate as a family nurse practitioner from Delta State University in 2003; a master's degree in Nursing Administration (MSN) in 1996; and Bachelor of Science in nursing (BSN) degree in 1990 from the University of Tennessee. Dr. Caldwell has worked in a variety of healthcare settings throughout her 32-year career including adult and pediatric emergency nursing, nursing administration, and nursing education (LPN to DNP) in both the community college and university settings. She has published and presented on topics relevant to nursing education and patient outcomes in local, state, and national venues. Currently, Dr. Caldwell is employed in an urgent care setting and is working on a post masters as a psychiatric mental health nurse practitioner (PMHNP).

Robyn B. Caldwell has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Reviewer: Kimberleigh Cox, DNP, PMHNP-BC, ANP-BC, PHNc., is an Associate Professor at the University of San Francisco's School of Nursing and Health Professions and is nationally board certified as both an adult nurse practitioner (ANP) and psychiatric mental health nurse practitioner (PMHNP). She is also a certified Public Health Nurse (PHNc). Dr. Cox received her bachelor's degree in Psychology from Brown University. She then worked for Harvard, Brown and Stanford Universities' Departments of Psychiatry and Mood Disorders Clinics from 1990-1995 doing clinical research, primarily in depressive and anxiety disorders. Dr. Cox received her master's degree in Nursing (MSN) from University of California San Francisco in 1998, completing a dual adult and psychiatric nurse practitioner program. She has practiced clinically as a Nurse Practitioner since 1998 working with diverse populations of individuals with psychiatric, behavioral health, and addictive problems in a variety of specialty mood disorders, psychiatric and residential care settings in California. She completed her Doctor of Nursing Practice (DNP) from USF in 2010 and was the Dean's Medal recipient for professionalism. Her doctoral work focused on chronic depression and the application of an evidence-based psychotherapeutic treatment. Dr. Cox has been teaching undergraduate and graduate nursing students in community/public health and psychiatric/mental health since 2003. She has presented nationally on managing patients with difficult behaviors, has authored publications, including "Bipolar and Related Disorders: Signs, Symptoms and Treatment Strategies" (2018), and has peer reviewed "Depression: A Major Public Health Concern" (2nd & 3rd editions - 2019, 2022).

Kimberleigh Cox has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Course overview

The goal of this course is to provide an introductory overview of mental health concepts. This course examines the history, epidemiology, legal/ethical aspects, mental health assessment, and other basic therapeutic skills used in mental health nursing. In-text links, case studies, and self-assessment questions and NCLEX-style testing are utilized.

This course is designed for registered nurses, licensed practical/vocational nurses, and newly licensed registered nurses who desire a greater understanding of basic mental health concepts. A fundamental understanding of medical terminology, abbreviations, and nursing care is assumed.

Learning objectives

Upon completion of the course, the learner will be able to:

- Explore historical aspects associated with mental healthcare.
- Identify legal and ethical principles of mental health nursing.
- Explore cultural aspects of mental health.
- Describe components of the psychiatric assessment, including the mental status exam.
- Describe neurobiological components essential to mental health.
- Identify therapeutic modalities used in mental healthcare.

How to receive credit

- Read the entire course online or in print which requires a 6-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal information and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion.

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Individual state nursing approvals

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Activity director

Deborah Martin, DNP, MBA, RN, NE-BC, FACHE, Director of Learning Innovation Colibri Healthcare, LLC

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The information provided in this activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient's medical condition.

Course verification

All individuals involved have disclosed that they have no significant financial or other conflicts of interest pertaining to this course. Likewise, and in compliance with California Assembly Bill No. 241, every reasonable effort has been made to ensure that the content in this course is balanced and unbiased.

INTRODUCTION

AIn 1973, the American Nurses Association (ANA) developed standards as a framework for psychiatric-mental health nursing practice, which evolved into the "Psychiatric-Mental Health Nursing: Scope and Standards of Practice" (2nd edition, 2014). These practice guidelines provide a foundation for standardization of the professional role, scope, and standards of practice for psychiatric-mental health nurses. During the 1980s and 1990s, respectively, the American Nurses Credentialing Center (ANCC) and American Association of Nurse Practitioners (AANP) implemented specialty certifications relevant to the level of education and experience of the applicants. Increasing numbers of psychiatric mental health nurse practitioners (PMHNPs) have obtained certification to provide advanced care to individuals in both acute and community health settings.

HISTORY OF MENTAL HEALTHCARE

Before the late 1800s, unusual behaviors were commonly thought to be caused by demonic forces. Those who displayed strange behaviors were often banished or confined. People with these odd behaviors were treated poorly and the treatments were aggressive and torturous. In the late 1700s, Philippe Pinel became the superintendent of a mental institution in France (Keltner, 2015). He noted the substandard conditions of the institution and the brutal treatment of the patients. He was the first to begin what became known as *moral therapy*, which consisted of better treatment, including unchaining patients and allowing them time outside. Soon after, William Tuke founded a similar facility in England (Boyd, 2018; Kibria & Metcalfe, 2016). This facility was based on the religious teachings of the Quakers and ensured moral treatment. Tuke saw this institution as a refuge for those with mental illness.

In the United States, Dorothea Dix, a Boston school teacher, was instrumental in opening a state hospital that endorsed a warm and caring environment, providing food and protection for Massachusetts residents (Boyd, 2018; Forrester, 2016). This facilitated a movement toward a more humanistic view of those with mental illness.

In the late 1800s and early 1900s, Sigmund Freud developed his landmark work regarding how childhood experiences and faulty parenting shape the mind (Boyd, 2018; Fromm, 2013). This began the movement toward scientific reasoning and understanding behaviors. Freud influenced researchers such as Carl Jung and Alfred Adler as well as other researchers who contributed to the fields of behaviorism, somatic treatments, and biology (Wedding & Corsini, 2020). With these new

developments, patients with psychiatric disorders began to receive needed psychiatric treatment and rehabilitation.

In 1946, the United States passed the National Mental Health Act, which resulted in the establishment of the National Institute of Mental Health or NIMH. In the second half of the 20th century, equality became a central tenet in mental health treatment. Many mental healthcare consumers became advocates and began to promote the rights of those with mental illness, working to demolish stigma, discrimination, and forced treatments.

In 1979, the National Alliance on Mental Illness, an advocacy group, was formed. Through the work of the alliance and other advocacy efforts, mental health patients were granted autonomy and began participating in their own care.

The 1990s were known as the *decade of the brain*, with focus placed on neuroscience and brain research.

It stimulated a worldwide growth of scientific research and advances, including the following:

- Research on genetic basis for mental illnesses.
- Mapping of the genes involved in Parkinson, Alzheimer's, and epilepsy.
- Discovery of the actions and effects of neurotransmitters and cytokines.
- Advancements in neuroimaging techniques that have increased our understanding of normal brain function and pathologic states (Halter, 2018).

In 1990, the Human Genome Project began to map the human genome. This 13-year project strengthened the theory that there are biological and genetic explanations for psychiatric conditions (https://www.genome.gov/human-genome-project). Although researchers have begun to identify genetic links to mental illness, research has yet to reveal the exact nature and mechanisms of the genes involved. It has been established, however, that psychiatric disorders can result from multiple mutated or defective genes.

EPIDEMIOLOGY

Epidemiology is the scientific study of the distribution (frequency, pattern) and determinants (causes, risk factors) of health-related states and events (not just diseases) in specified populations including neighborhoods, schools, cities, states, countries, and globally (https://www.cdc.gov/). Concepts related to epidemiology include *incidence* and *prevalence*. Applied to mental health, incidence is the number of new cases of a mental disorder in each period. Prevalence is the total number of cases in each population for a specific period. According to 2019 data from the National Institutes of Mental Health (NIMH), an estimated 51.5 million adults aged 18 or older (20.6%) in the United States have been diagnosed with mental illness. Lifetime prevalence estimates 49.5% of adolescents have been diagnosed with a mental disorder and 22.2% have had severe impairment (NIMH).

POLICY AND PARITY

The first Surgeon General's report on mental health was published in 1999. This landmark report, which was based on scientific literature and included a focus on mental health providers and consumers, concluded that mental health is fundamental to holistic health and that effective treatments for mental disorders are available.

In 2003, the President's New Freedom Commission on Mental Health recommended that the healthcare system needed to streamline care for those suffering from mental illness. This commission advocated for early diagnosis, prevention, and treatment and set forth new expectations for recovery and assistance for those experiencing mental illness to find housing and work.

In 2006, the Institute of Medicine (now the Health and Medicine Division of the National Academies) Committee on Crossing the Quality Chasm published Improving the Quality of Health Care for Mental and Substance Use Conditions. The *Quality Chasm* series highlights effective treatments and addresses large gaps in care, focusing on voluntary treatment. Additionally, this promotes a system that treats mental health issues separately from physical problems. A strong recommendation was made for equality in financial reimbursement and quality treatment. *The Mental Health Parity and Addiction Equity Act of 2008* (Office of the Federal Register, 2013) sought to improve the quality of treatments for those with mental illness by advocating mental health coverage at the same annual and lifetime benefit as any medical-surgical coverage (Centers for Medicare & Medicaid Services, n.d.). This Act required any business with more than 50 employees to have mental health coverage at the same level as medical-surgical coverage (Centers for Medicare & Medicaid Services, n.d.). This includes deductibles, copayments, coinsurance, out-of-pocket expenses, and treatment limitations. The requirements under the Act are applied indirectly to small group health plans in tandem with the Affordable Care Act's essential health benefit requirements (Centers for Medicare & Medicaid Services, n.d.).

PSYCHIATRIC AND MENTAL HEALTH NURSING

The psychiatric nurse *promotes mental health through the assessment, diagnosis, and treatment of human responses to mental health problems and psychiatric disorders* (American Nurses Association, 2014, p. 129). Psychiatric nursing integrates the use of self, neurobiological theories, and evidence-based practice in planning treatments. Nurses work in a variety of inpatient and outpatient settings with individuals and families across the lifespan who exhibit mental health needs. Specific activities of the psychiatric nurse are defined by the Psychiatric-Mental Health Nursing: Scope and Standards of Practice, published jointly by the American Nurses Association, the American Psychiatric Nurses Association, and the International Society of Psychiatric Mental Health Nurses (American Nurses Association, 2014).

Nurses encounter patients in crisis in many clinical settings. The crisis may be physical, emotional, mental, or spiritual. Regardless of the origin, these patients express a variety of feelings including hopelessness, helplessness, anxiety or anger, low self-esteem, and confusion. Many individuals act withdrawn, suspicious, depressed, hostile, or suicidal. Additionally, the individual may be intoxicated or withdrawing from alcohol or other substances. Knowledge of basic psychiatric concepts increases nursing competency in any clinical setting.

DSM-5 NOMENCLATURE FOR DIAGNOSES AND CLASSIFICATIONS

Blood tests, though useful for diagnosing many physical disorders, cannot diagnose all psychiatric disorders. Instead, healthcare practitioners base their diagnoses primarily on symptoms. Emil Kraepelin was the first healthcare provider to recognize and categorize patients' symptoms into mental disorders around the turn of the 20th century (Boyd, 2018).

Today, healthcare providers often use other forms of tests, such as genetic testing, computerized tomography, magnetic resonance imaging, and positron emission tomography, to detect changes in the brain and brain activity.

By 1880, researchers had developed seven classifications of mental illness: mania, melancholia, monomania, paresis, dementia, dipsomania, and epilepsy (APA, n.d.). By 1918, the need for uniformity in diagnoses drove the Committee on Statistics of the American Medico-Psychological Association, which later became the American Psychiatric Association (APA, 2013), to develop the first *Statistical Manual for the Use of Institutions for the Insane*. The purpose of this document was to gather statistical information from institutions regarding 22 known disorders. Following World War II, US Army psychiatrists expanded the diagnostic categories to better incorporate the types of problems veterans experienced as a result of combat (APA, n.d.).

In 1952, the APA published the first edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*. Since then, the APA has published new editions of the DSM every 5 to 10 years. In 2013, the APA released the fifth edition of the DSM, the most recent version (APA, 2013). The DSM-5 is the result of a 12-year revision process involving hundreds of professionals, field trials to demonstrate the reliability of the data, and public and professional review and comment (APA, 2013).

The purpose of the DSM-5 is to facilitate healthcare providers' diagnosis of mental disorders and development of individualized treatment plans (APA, 2013). The DSM-5 bases disorders on a continuum from mental health to mental illness. A mental disorder is defined in the DSM-5 as *a syndrome characterized by clinically significant disturbance in the individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning* (APA, 2013, p. 20). The definition also reflects the high level of disability or distress in occupational or other life activities that results from the mental disorder.

Some healthcare providers feel that the DSM-5's categorical classifications limit its use because individuals may not fit neatly into one specific category. Regardless, the DSM-5 serves as a guideline to assist practitioners in making sound clinical decisions. Diagnosis does not always imply etiology; therefore, using the DSM-5 to predict behavior or response to treatment is inappropriate (APA, 2013).

THEORIES RELATED TO PSYCHIATRIC AND MENTAL HEALTH NURSING

Mental health professionals base their work on assessments, behaviors, and theories. These are often described as explanations or hypotheses and tested for relevance and soundness. In mental health, theories are often borrowed from other disciplines and inspire treatments for the practice of psychiatric nursing.

Freud's psychoanalytic theory

Sigmund Freud, referred to as *the father of psychoanalysis*, revolutionized thinking about mental disorders (Townsend, 2019). His theories of personality structure, level of awareness, anxiety, the role of defense mechanisms, and stages of psychosexual development revolutionized the psychiatric world (Townsend, 2019). Although Freud started as a biological scientist, he changed his approach to conversational therapy. He concluded that talking about difficult issues involving intense emotions had the potential to heal problems that could cause mental illnesses. This led Freud to develop his psychoanalytic theory (https://pmhealthnp.com/pmhnp-topics/sigmund-freud-psychoanalytic-theory/).

Erikson's theory on the stages of human development

Erik Erikson, a developmental psychologist, emphasized the role of the psychosocial environment and expanded on Freud's psychoanalytic theory. The Eight Stages of Man, is organized by age and developmental conflicts:

1. Basic trust versus mistrust.
2. Autonomy versus shame and doubt.
3. Initiative versus guilt.
4. Industry versus inferiority.
5. Identity versus role confusion.
6. Intimacy versus isolation.
7. Generativity versus stagnation.
8. Ego integrity versus despair.

Analysis of behavior using Erikson's framework helps nurses to identify long term successful resolution of psychosocial development across the lifespan.

Harry Stack Sullivan's interpersonal theory

Interpersonal theories are the cornerstone of mental health nursing. Harry Stack Sullivan, an American-born psychiatrist, identified personality as an observable behavior within interpersonal relationships, which led to the development of his interpersonal theory. Sullivan believed that anxiety or painful feelings arise from insecurities or the inability to meet biological needs. All behaviors are designed to help individuals through interpersonal interactions by decreasing anxiety. Individuals are unaware that they act out behaviors to decrease anxiety and therapy can help the patient gain personal insight into these insecurities. He was the first to use the term *participant observer*, which refers to the idea that therapists must be part of the therapeutic session. Sullivan insisted that healthcare professionals should interact with patients as authentic human beings through mutual respect, unconditional acceptance, and empathy. Sullivan developed the concept of psychotherapeutic environments characterized by accepting the patient and the situation, which has become an invaluable treatment tool. Even today, many group psychotherapies, family therapies, and training programs use Sullivan's design of an accepting atmosphere (Halter, 2018).

Hildegard Peplau's theory of interpersonal relations

Hildegard Peplau, sometimes referred to as the *mother of psychiatric nursing*, published the theory of interpersonal relations in 1952, which became a foundation for modern psychiatric and mental health nursing (Townsend, 2019). The goal of interpersonal therapy is to reduce or eliminate psychiatric symptoms by improving interpersonal functioning (Sadock, & Ruiz, 2015). Sullivan's work greatly influenced Peplau. She developed the first systematic framework for psychiatric nursing, focusing on the nurse-patient relationship. Peplau established the foundation of professional practice for psychiatric nurses and continued working on psychiatric nursing theory and advancement of nursing practice throughout her career. She was the first nurse to identify mental health nursing as a specialty area with specific ideologies and principles, and the first to describe the nurse-patient relationship as the foundation for nursing practice (Boyd, 2018).

Peplau created a major shift from a care model focused on medical treatment to one based on the interpersonal relationship between nurses and patients. She further proposed that nurses are both participants and observers in the therapeutic treatment of patients. Her theory recognizes the *ability to feel in oneself the feelings experienced by another*; she identified this as *empathetic linkage* (Boyd, 2018). Another key concept, according to Peplau, is anxiety, which is an energy that arises when present expectations are not met (Boyd, 2018). Throughout her career, Peplau's goal was for nurses to care for the person and the illness.

B.F. Skinner's behavioral theory

Behavioral theories supply techniques that patients can use to modify or replace behaviors. This is an important concept in psychiatric nursing management and is the basis of several approaches that research has shown to be successful in altering specific behaviors. B. F. Skinner, a prominent behaviorist, researched *operant conditioning*, the process through which consequences and reinforcements shape behaviors. Behavioral therapy is grounded in the assumption that maladaptive behaviors can be changed, and positive and negative reinforcements can be used to help modify behavior.

Behavioral therapy is often used in treating people with phobias, alcoholism, and anxiety. Another type of behavioral therapy is modeling, in which the therapist or nurse role-plays specific behaviors so that the patient can learn through imitation. Role-playing allows the patient to practice modeled behaviors in a safe environment. Another form of behavioral therapy is systematic desensitization, which targets a patient's specific fears and proceeds in a step-by-step manner to alleviate those fears with the help of relaxation techniques (Keltner, 2018).

Aaron Beck's cognitive behavioral therapy

Whereas behaviorists focus on the belief that behaviors can be changed, other researchers focus on cognition or thoughts involved in behaviors. Aaron Beck developed cognitive behavioral therapy after working with depressed patients. Cognitive behavioral therapy is based on cognitive psychology and behavioral therapy. Beck believed that depression was the result of distorted thinking processes and negative self-concept (https://www.ncbi.nlm.nih.gov/books/NBK470241/). Using this approach, the nurse can help the patient identify negative thought patterns and then help the patient recondition these cognitive distortions into more appropriate beliefs that are based on facts (https://www.ncbi.nlm.nih.gov/books/NBK470241/).

Humanistic Theories

Humanistic theories focus on the potential and the free will of patients. These theories emphasize self-actualization, the highest potential and productivity that an individual can achieve in life. For example, Abraham Maslow believed that motivation is driven by a hierarchy of needs that leads to becoming the best person possible. This model allows the nurse to work with the patient to create an individualized care plan based on the current hierarchical needs of the patient https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4130906/.

THE STRESS-DIATHESIS MODEL

The Stress-Diathesis Model was originally developed to explain schizophrenia during the 1960s, but later adapted to study depression during the 1980s (Colodro-Conde, et.al, 2018). According to this model, stress activates certain vulnerabilities (diathesis), which predisposes the individual to psychopathology. This model has been criticized for its vagueness, yet these principles are used to understand other psychiatric disorders.

BIOLOGICAL MODEL

Mental health nurses also attend to the physical needs of psychiatric patients. The nurse may administer prescribed medication, nutrition, and hydration to ensure optimal physiological functioning of the patient. The biological model of mental illness focuses on the chemical, biological, and genetic makeup of mental illness. This model seeks to understand how the body and brain interact to create experiences and emotions, and how social, environmental, cultural, spiritual, and educational factors influence individuals (Halter, 2018). All the theories discussed in this section play a vital role in how the nurse cares for the patient with a mental health disorder.

Self-Assessment Quiz Question #1

Which best describes Aaron Beck's Contribution to the mental health profession?

a. Hierarchy of needs.
b. Cognitive behavioral therapy.
c. Empathetic linkages.
d. Operant conditioning.

ETHICAL, LEGAL, AND CULTURAL CONSIDERATIONS

The term *ethics* refers to an individual's beliefs about right and wrong and societal standards regarding right and wrong. Bioethics refers to ethical questions related specifically to healthcare (Halter, 2018).

Ethics are linked to cultural values. Societal standards and values can be determined only within a specific group. However, fundamental principles of ethics exist in all cultures and are inherent in all human beings. Understanding how cultures view mental illness and the accompanying patient symptoms can influence how decisions, particularly ethical decisions, are made. Nurses can be an instrumental part of effective decision making when cultural values and societal standards differ.

A thorough understanding of general ethical principles is necessary to make reasonable, fair, and sound judgments in providing care. Nurses who choose to work in the specialty of mental healthcare will encounter ethical questions on almost a daily basis. Issues such as autonomy, confidentiality, patient protection, therapeutic relationships, mental health competency, and mental health admissions are particularly complicated. To better guide the nurse in making ethical choices, an understanding of the American Nurses Association Code of Ethics and the five basic principles of bioethics is useful.

American Nurses Association Code of Ethics

The American Nurses Association (ANA) established an ethical standard for the nursing profession that guides ethical analysis and decision making (ANA, 2015). Ethics is a branch of philosophy where one reflects on morality, which is the person's character, values, and conduct in a particular situation (ANA, 2015).

The Code of Ethics is the foundation for nursing theory and practice where values and obligations shape the nursing profession (ANA, 2015). This living document changes based on nursing's social context, with a revision occurring at minimum every 10 years (ANA, 2015). The ANA Code divides ethical issues into nine provisions, based on general ethical principles:

- Provision 1
  - The nurse practices with compassion and respect for the inherent dignity, worth, and unique attributes of every person, including self-determination (ANA, 2015).
- Provision 2
  - The nurse's primary commitment is to the patient, whether an individual, family, group, community or population (ANA, 2015).

- Provision 3
  - The nurse promotes, advocates for, and protects the rights, health, and safety of the patient (ANA, 2015).
- Provision 4
  - The nurse has authority, accountability, and responsibility for nursing practice, makes decisions, and takes action consistent with the obligation to promote health and to provide optimal care (ANA, 2015).
- Provision 5
  - The nurse owes the same duties to self as to others, including the responsibility to promote health and safety, persevere wholeness of character and integrity, maintain competence and continue personal and professional growth (ANA, 2015).
- Provision 6
  - The nurse, through individual and collective effort, establishes, maintains, and improves the ethical environment of the work setting and conditions and employment are conducive to safe, quality care (ANA, 2015).
- Provision 7
  - The nurse, in all roles and settings, advances the profession through research and scholarly inquiry, professional standards development, and the generation of both nursing and health policy (ANA, 2015).
- Provision 8
  - The nurse collaborates with other health professionals and the public to protect human rights, promote health diplomacy, and reduce health disparities (ANA, 2015).
- Provision 9
  - The profession of nursing, collectively through its professional organizations, must articulate nursing values, maintain the integrity of the profession and integrate principles of social justice into nursing and health policy (ANA, 2015).

The ANA Code may be viewed at no charge on the ANA website (https://www.nursingworld.org/coe-view-only).

Bioethical principles

Bioethics is a branch of ethics that studies the implications of biological and biomedical advances and can be considered a set of guiding principles for the nursing profession that go beyond right and wrong. Bioethical principles fall into five categories (Boyd, 2018; Halter, 2018). These principles are meant to be guidelines to help all clinicians in decision making.

- *Beneficence*: Clinicians have a duty to assist the patient to achieve a higher level of well-being. This concept encompasses kindness and generosity toward the patient in providing care. An example of this is changing healthcare policy or making sure a patient brought to the emergency department in severe pain gets medication as soon as possible.
- *Fidelity*: Healthcare providers have a duty to be honest and trustworthy. This concept includes loyalty, advocacy, and a commitment to the patient. An example of this is staying abreast of best practices in nursing or advocating for the patient to receive high-quality services. Another example is being faithful in your promises to check on a patient within a specific timeframe.
- *Autonomy*: The healthcare provider acknowledges the patient's right to make their own decision, even if the nurse disagrees with the decision. An example of this is a patient with cancer who refuses treatments that may prolong their life.
- *Justice*: Healthcare providers must recognize that all persons are entitled to equal treatment and quality of care. For example, it can be particularly difficult to provide emotional support and counseling equally to both the family harmed by an intoxicated driver and to the driver. Healthcare providers should strive to be nonjudgmental and fair to all patients, regardless of age, gender, race, sexual orientation, diagnosis, or any other differentiating characteristic.
- *Veracity*: The healthcare provider should always be truthful with the patient. This allows the patient to make informed decisions about their treatment. For example, talking to the patient about the side effects of medications is showing respect to the patient by being truthful.

Self-Assessment Quiz Question #2

Patients admitted to inpatient psychiatric units are scheduled for group therapy two times daily. Attendance is strongly encouraged, but not mandatory. Which ethical principle is demonstrated by this unit policy?

a. Autonomy.
b. Justice.
c. Beneficence.
d. Veracity.

IMPORTANT LEGISLATION IN MENTAL HEALTH

Section 1 of the 14th Amendment to the US Constitution adopted on July 9, 1868, states:

> *All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the state wherein they reside. No state shall … deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws* (U.S. Constitution). The issue of liberty has been tested repeatedly in the courts in cases in settings where U.S. citizens have been held against their will, including in psychiatric institutions.

Keltner and Steele (2018) provide an overview of landmark legal decisions related to patients with psychiatric disorders. Historically, these nine rulings have had a major impact on the legal rights of patients with psychiatric disorders. A summary of each of these legal decisions is as follows:

1843 – The *M'Naghten rule* first identified a legal defense of not guilty by reason of insanity by stating that persons who do not understand the nature of their actions cannot be held legally responsible for those actions (https://www.law.cornell.edu/wex/m%27naughten_rule).

1965 – In *Griswold v. Connecticut*, The Supreme Court first recognized that a person has the right of marital privacy under the Constitution of the United States (https://www.law.cornell.edu/wex/griswold_v_connecticut_(1965)).

1966 – In *Rouse v. Cameron*, the courts found that a patient committed to an institution must be actively receiving treatment and not merely warehoused (https://casetext.com/case/rouse-v-cameron)

1968 – In *Meier v. Ross General Hospital*, a physician was found liable for the death of a hospitalized patient who committed suicide while under his care. The patient had a previous suicide attempt before the hospital stay. The physician was liable for failing in his *duty to warn* of the threat of suicide in this patient (https://caselaw.findlaw.com/ca-supreme-court/1822578.html)

1972 – In *Wyatt v. Stickney*, the entire mental healthcare system of Alabama was sued for an inadequate treatment program. The court ruled that each institution within the mental healthcare system must (1) stop using patients for hospital labor needs, (2) ensure a humane environment, (3) maintain minimum staffing levels, (4) establish human rights committees, and (5) provide the least restrictive environment possible for the patients (https://mentalillnesspolicy.org/legal/wyatt-stickney-right-treatment.html).

1976 – In the well-known case of *Tarasoff v. The Regents Of the University of California*, the parents of Tatiana Tarasoff sued the university following the 1969 death of their daughter at the hands of Prosenjit Poddar. Poddar had told his therapist that he planned to kill Tarasoff when she returned from summer break. Although the therapist had contacted the police, law enforcement released Poddar because he appeared rational. The court found that the therapist had a *duty to warn of threats of harm to others* and was negligent in not notifying Tarasoff of the threats that had been made against her (https://law.justia.com/cases/california/supreme-court/3d/17/425.html).

1979 – Patients at Boston State Hospital sought the right to refuse treatment in *Rogers v. Okin*. Based on the 1965 decision regarding the right of personal privacy, the court found that the hospital could not force nonviolent patients to take medication against their will. This ruling also included the directive that patients or their guardians must give informed consent before medications could be given (https://pubmed.ncbi.nlm.nih.gov/6134270/ and https://muse.jhu.edu/article/404046).

1983 – In *Rennie v. Klein*, a patient claimed a hospital violated his rights when he was forced to take psychotropic medications. The ruling again addressed the right to refuse treatment and the right to privacy, and it furthered the necessity of obtaining informed consent (https://pubmed.ncbi.nlm.nih.gov/11648483/).

1992 – *Foucha v. Louisiana* demonstrated that the nature of an ongoing psychiatric commitment must *bear some reasonable relation to the purpose for which the patient is committed* (Foucha v. Louisiana, 1992). When Foucha was first hospitalized, the indication was a patient who was considered mentally ill and dangerous. The ruling recognized that patients who are no longer mentally ill do not require hospitalization and that patients are not required to prove themselves to be no longer dangerous (https://www.law.cornell.edu/supct/html/90-5844.ZO.html).

Mental health laws have been created to protect patients with psychiatric disorders and regulate their care. These laws often vary by state. Check the Nurse Practice Act within the respective state of practice to determine state-level regulation.

MENTAL HEALTH AND DEINSTITUTIONALIZATION

The changes in mental healthcare over the years show a shift in care from institutionalization to community settings, also known as deinstitutionalization (Boyd, 2018). Deinstitutionalization was also significant because this shaped our current community and mental health treatment for many vulnerable individuals including the homeless and those with substance use disorders. During the era of state hospitals, mentally ill individuals were less likely to be chronically homeless. While deinstitutionalization was a noble concept, it was not well implemented. The lack of existing public health infrastructure left communities unprepared to manage those with chronic mental illness. Additionally, the arrival of inexpensive and accessible illicit drugs like crack cocaine, changed the face of communities and left those with mental illness even more vulnerable. The lack of affordable treatment for mental health disorders contributes to both individual and public health risk.

Two of the most important concepts in civil rights law are the writ of habeas corpus and the least restrictive alternative doctrine (Halter, 2018). The writ of habeas corpus pertains to holding people against their will. Psychiatric patients are included in this protection and they have the right not to be detained unless individual welfare is involved. Additionally, the least restrictive alternative doctrine states that a patient's autonomy must be upheld whenever possible (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2733575/pdf/behavan00025-0105.pdf). In practice it means that nurses need to try to manage patients' symptoms and behaviors with psychotherapeutic interventions (milieu management, communication, and behavioral approaches) first. If symptoms are not fully or adequately managed, nurses should document what was attempted and ineffective in order to move to more restrictive measures or levels of care (i.e. move up the treatment hierarchy to more restrictive approaches such as medications/chemical restraints, seclusion, and/or physical restraints). Each time a more restrictive measure is applied, documentation needs to support which lesser restrictive strategies were attempted and describe their lack of efficacy.

An understanding of civil rights and state regulations is important to patient care procedures. Admission of psychiatric patients can be voluntary or involuntary, but neither voluntary nor involuntary admission indicates the ability of the patient to make decisions (Halter, 2018). Admission procedures are in place to protect the patient and the public. Involuntary admission is used when patients are a danger to self or others or cannot take care of themselves. However, all patients are to be treated with respect and have the right to informed consent, the right to refuse medications, and the right to the least restrictive treatments (Boyd, 2018). Furthermore, the patient must be seen by a specified number of providers who confirm that the patient meets the criteria for involuntary admission.

THE CONSUMER BILL OF RIGHTS AND CONFIDENTIALITY

In 1997, President Clinton appointed the Advisory Commission on Consumer Protection and Quality in the HealthCare Industry. The Commission, co-chaired by Donna Shalala, secretary of the Department of Health and Human Services at the time, issued its final report, which included a Consumer Bill of Rights & Responsibilities. Of interest to psychiatric nurses is the section on confidentiality of health information. Patients with psychiatric disorders are expressly protected in the confidentiality of their records; practitioners may not share information with any third party without the express written consent of the patient or their legal guardian. The patient can withdraw consent to release information at any time.

CONSUMER BILL OF RIGHTS AND RESPONSIBILITIES

The Commission's consumer bill of rights consists of the following rights and responsibilities:

1. Access to Accurate, Easily Understood Information about health plans, facilities, and professionals to assist consumers in making informed health care decisions;
2. Choice of Health Care Providers that is sufficient to ensure access to appropriate high quality care. This right includes providing consumers with complex or serious medical conditions access to specialists, giving women access to qualified providers to cover routine women's health services, and ensuring continuity of care for consumers who are undergoing a course of treatment for a chronic or disabling condition;
3. Access to Emergency Services when and where the need arises. This provision requires health plans to cover these services in situations where a prudent layperson could reasonably expect that the absence of care could place their health in serious jeopardy;
4. Participation in Treatment Decisions including requiring providers to disclose any incentives -- financial or otherwise -- that might influence their decisions, and prohibiting gag clauses that restrict health care providers' ability to communicate with and advise patients about medically necessary options;
5. Assurance that Patients are Respected and Not Discriminated Against, including prohibiting discrimination in the delivery of health care services based on race, gender, ethnicity, mental or physical disability, and sexual orientation;
6. Confidentiality provisions that ensure that individually identifiable medical information is not disseminated and that provide consumers the right to review, copy, and request amendments to their medical records;
7. Grievance and Appeals Processes for consumers to resolve their differences with their health plans and health care providers -- including an internal and external appeals process; and
8. Consumer Responsibilities provisions that ask consumers to take responsibility by maximizing healthy habits, becoming involved in health care decisions, carrying out agreed-upon treatment plans, and reporting fraud.

Note. Adapted from the President's Advisory Commission. (1997). Consumer bill of rights and responsibilities. Retrieved from https://govinfo.library.unt.edu/hcquality/press/cborimp.html

In addition to the Consumer Bill of Rights, the Health Insurance Portability and Accountability Act (HIPAA) was enacted in 1996 and went into effect in 2003 (U.S. Department of Health and Human Services, 1996). This act was designed to protect patient health information more securely and has been a major force behind the use of electronic health records.

There are a few circumstances where confidentiality may be waived in mental health (U.S. Department of Health and Human Services, 2000). If the patient has made a direct threat against another person, the healthcare provider has a clear duty to warn the endangered individual (U.S. Department of Health and Human Services, 2000). If the patient has reported actual or suspected abuse (including molestation) or neglect of a minor child, the healthcare provider has an obligation to report this to the appropriate Child Protective Services division of the state's Office of Family and Children. A judge may also order documents (clinical records) to be turned over to the court for examination. A subpoena to appear in court does not constitute a judge's order to release information; it merely mandates the appearance of the subpoenaed individual. Violation of the confidentiality of a patient with a psychiatric illness in situations other than those outlined by law may subject the nurse to legal action and revocation of licensure. Most agencies have an acceptable form that identifies to whom information can be released, the date that the release is valid, and types of information that can be shared.

NURSING LIABILITY IN MENTAL HEALTH

The state nurse practice act (NPA) is the single most important piece of legislation for the nurse because it affects ALL facets of nursing practice. Each state has its own NPA for which the courts have jurisdiction. NPA's generally grant specific provisions on how nurses practice in a state and define 3 levels of nurses: LPNs, RNs, and APRNs with defined scopes of practice. The nurse practice act also established a state board of nursing. Its main purpose is to ensure enforcement of the act and protect the public.

Individuals who present themselves as nurses must be licensed. The National Council of State Boards of Nursing serves as a clearinghouse, further ensuring that nursing licenses are recorded and enforced in all states. Individual state boards of nursing develop and implement rules and regulations regarding the discipline of nursing. Most changes deal with modifications with rules and regulations rather than the act itself. Nurses must be advised of the provisions of the state's nurse practice act. Thus, what is acceptable in one state is not necessarily acceptable in another state.

The nurse has legal liability in the psychiatric setting when caring for patients (Boyd, 2018). *Torts* are wrongful acts that result in injury, loss, or damage and can be intentional or unintentional (Boyd, 2018). *Intentional torts* are voluntary acts that result in harm to the patient and include the following:

- *Assault* involves any action that causes an individual to fear being touched in any way without consent. Examples of this include making threats to restrain a patient or making threats to administer an injection for failure to cooperate.
- *Battery* involves harmful or unwarranted contact with a patient; actual injury may or may not occur. Examples of this include touching a patient without consent or unnecessarily restraining a patient.
- *False imprisonment* involves the unjustifiable detention of a patient. Examples of this include inappropriate use of a restraint or inappropriate use of seclusion

Unintentional torts are involuntary acts that result in harm to the patient and include the following:

- *Negligence* involves causing harm by failing to do what a reasonable and prudent person would do in a similar circumstance (anyone can be negligent). Examples of this include failing to erect a fence around a pool and a small child drowns or leaving a shovel on the icy ground and someone falls down on it and cuts their head.
- *Malpractice* is a type of negligence that refers specifically to healthcare professionals. An example of this includes a nurse who does not check the treatment orders and subsequently gives a medication that kills the patient.

CULTURAL CONSIDERATIONS IN MENTAL HEALTHCARE

Culture influences various aspects of mental health, including the recognition and expression of psychiatric symptoms, coping styles, community support, and the willingness to seek treatment. Cultural concepts of distress are recurrent, locality-specific patterns of aberrant behavior that are not linked to a specific diagnostic category in the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (American Psychiatric Association, 2013). More impoverished communities have environmental risks such as a lack of access to healthy nutritious foods, clean soil, and clean air in urban areas. This may impact mental health via physiological/neurological impact and deficits, especially in vulnerable populations.

As of 2021, the percentage of the US population that self-identified as African American had grown to 13.4% (U.S. Census Bureau QuickFacts: United States). Although anyone can develop a mental health problem, African Americans may experience barriers to appropriate mental healthcare(National Alliance on Mental Illness, n.d.a). For example, the poverty rate among African Americans in 2020 was 19.4%, with 11.4 million people of all races living in poverty (Income and Poverty in the United States: 2020 [census.gov]). Poverty directly relates to mental healthcare access. The poverty rates in the African American community combined with provider bias and patient distrust of the health system can result in subpar mental health care for African Americans (NAMI: National Alliance on Mental Illness. In addition, the African American community has experienced increasing diversity because of immigration from Africa, the Caribbean, and Latin America. Mental healthcare providers need to understand this diversity and develop cultural competence (Boyd, 2018). Contributing to this cultural consideration is the estimation that over half of the prison population has a mental illness and that African Americans are five times more likely to be incarcerated than Whites (Mental Health America, n.d.; Sakala, 2014).

The Latin/Hispanic American population is rapidly growing, currently comprising 18.6% of the nation's total population (U.S. Census Bureau QuickFacts: United States). In 2020, 17.0% of Latin/Hispanic Americans were living in poverty. Rates of mental health disorders in this population are similar to those of non-Hispanic Caucasians, with some exceptions:

- Older Hispanic adults and Hispanic youths are more vulnerable to the stress associated with immigration and acculturation' and experience more anxiety, depression, and drug use than non-Hispanic youths.
- Depression in older Hispanic adults is closely correlated with physical illness; and suicide rates were about 50% that of non-Hispanic Whites, although suicide ideation and unsuccessful attempts were higher (State of Mental Health in America - 2020_0.pdf (mhanational.org).
- There is a higher incidence of post-traumatic stress disorder (PTSD) in Hispanic men, some of which may be attributable to social disorder experienced before immigration. As of 2020, there were 1.2 million Hispanic or Latinos who are US military veterans (U.S. Census Bureau QuickFacts: United States).
- The rates of substance use disorders are slightly lower in Hispanic women and slightly higher in Hispanic men. Hispanics are approximately twice as likely as Whites to die from liver disease, which could be associated with substance use (Hispanic Health | VitalSigns | CDC).

There are few Hispanic children in the child welfare system, but Hispanics are twice as likely as Whites to be incarcerated at some point in their lifetime (Sakala, 2014). The lack of Spanish-speaking mental healthcare providers has been a problem, likely causing fewer than 1 in 11 Hispanic individuals with a psychiatric disorder to seek treatment (Mental and Behavioral Health - Hispanics - The Office of Minority Health (hhs.gov)). Misdiagnosis is common and is often related to language barriers. Among Hispanics living in the United States, one in three do not speak English well (Hispanic Health | VitalSigns | CDC). Hispanic Americans are more likely to use folk remedies solely or as a complement to traditional care, and some may consult church leaders or healers for more traditional care (Hispanic/Latinx | NAMI: National Alliance on Mental Illness).

Asian Americans and Pacific Islanders comprise just over 20 million of the US population and are considered one of the fastest growing racial/ethnic groups within the United States (U.S. Census Bureau, 2020; Wyatt, Ung, Park, Kwon, & Trinh-Shevrin, 2015). By 2060, it is projected that 1 in 10 children in the United States will be Asian (Wyatt et al., 2015). There are numerous ethnic subgroups included in the Asian American/Pacific Islander demographic, with over 100 languages and dialects (Asian American/Pacific Islander Communities and Mental Health | Mental Health America (mhanational.org)). Thirty-two percent of Asian Americans have difficulty accessing mental healthcare services because they do not speak fluent English (Asian American/Pacific Islander Communities and Mental Health | Mental Health America (mhanational.org)). For example, older Asian Americans may not understand questions or the intent of a medical interview, and they may give affirmative answers to avoid confrontation. Asian Americans and Pacific Islanders are the least likely of any group to seek help with mental health issues (Hernandez, Nesman, Mowery, Acevedo-Polakovich, & Callejas, 2015). Although fewer mental health concerns are reported in this group, few epidemiological studies have included this population (Asian American/Pacific Islander Communities and Mental Health | Mental Health America (mhanational.org)). Asian Americans tend to exhibit somatic (physical) symptoms of depression more frequently than emotional symptoms (Boyd, 2018; Kalibatseva & Leong, 2011). The focus on physical symptoms and misdiagnosis serves as a barrier to mental healthcare for this population. Suicide rates within this population should be monitored closely by examining risk factors such as acculturation, family discrimination, social acculturalization, and discrimination (Boyd, 2018; Wyatt et al., 2015).

NURSING CARE IN MENTAL HEALTH

Standards of practice

The American Nurses Association's scope and standards of practice of psychiatric-mental health nursing *(Psychiatric-Mental Health Nursing Scope and Standards of Practice)* provides the foundation for the application of the nursing process to patients with psychiatric disorders (American Nurses Association, 2014). The *PMHNP Scope and Standards of Practice* also serves as a reference document for the National Council Nursing Licensure Examination (NCLEX) and many state nurse practice acts. The *PMHNP Scope and Standards of Practice* includes each step of the nursing process: assessment, diagnosis, planning, implementation, and evaluation.

When using the *PMHNP Scope and Standards of Practice*, the nurse should consider the individual's age, language, and culture. The nurse should also address each patient's developmental level. Note that the age and the developmental level may be incongruent in certain mental illnesses. Use age-appropriate communication techniques to establish a therapeutic alliance with both the patient and the family. Additionally, observations of behaviors and reactions are just as important as the conversation. Parents are often present during a child assessment. However, if abuse or neglect is suspected, it may be prudent to talk to the child or adolescent alone. In cases involving child sexual abuse or other uncomfortable issues, the nurse may need the assistance of a healthcare provider with advanced training to interview the child.

When working with adolescents, the therapeutic alliance may be hindered by concerns of confidentiality. Reassure the adolescent that conversations are confidential, and information is only

shared with team members, except in certain circumstances. In cases of suicidal or homicidal thoughts, sexual abuse, or other high-risk behaviors, the nurse must share the assessment information with other healthcare professionals and the parents. In fact, identifying risk factors in this age group is an important aspect of the assessment.

THE NURSING PROCESS IN MENTAL HEALTH

The physiological health exam and work-up is an initial step for thoroughly and accurately diagnosing and managing mental health conditions, including common screening labs and physical exams to rule out common medical issues that could be causing, mimicking, or contributing to mental health symptoms. Some physiological conditions present with psychiatric symptoms. Ensuring that the patient has a baseline physical assessment assist in the accurate diagnosis and appropriate treatment of all conditions, thus demonstrating the mind-body connection. Because of this link, the history and presenting symptoms of the patient are of utmost importance.

The nursing process is a systematic way of developing an individualized plan of care for those experiencing a disruption in mental health status. The traditional nursing process consists of performing a comprehensive assessment, formulating nursing diagnoses, developing a care plan, implementing selected nursing interventions, and evaluating the outcome or effectiveness of those interventions (Boyd, 2018). Most facilities have their own documentation that follows accepted guidelines for mental health assessment.

Assessment

Creating a therapeutic alliance is an important step in the holistic care of the patient. This connection provides an optimal setting for obtaining the psychosocial and psychiatric history. The first step is to obtain a thorough history of the patient, incorporating elements of current and past health problems, social issues affecting health, and cultural or spiritual beliefs that may support or interfere with prescribed healthcare treatments (Halter, 2018). The nurse should obtain the history in an environment conducive to effective communication between the nurse and the patient. Family members and significant others may or may not be present, or they may be present for a portion of the time and then be asked to step out to maintain the patient's confidentiality. Interviews should be conducted in a private conference room or patient's room (if inpatient or residential) rather than in a public area where others may overhear. If personal safety is a concern, the nurse may request another staff member to be present. The nurse should remove distracting elements such as a television or radio. If the nurse determines that the patient is too ill to be able to provide accurate information or that the interview process itself will be detrimental to the patient's health, then the nurse should obtain information from other reliable sources, such as family members, social workers, therapists, and primary healthcare providers (Boyd, 2018). Documentation of the source of information is important, particularly when the patient is unable to provide an accurate history. Although the psychiatric nurse may gather information from other sources, it is important that the nurse not disclose any information regarding the patient's status without the patient's written consent to avoid a breach in confidentiality.

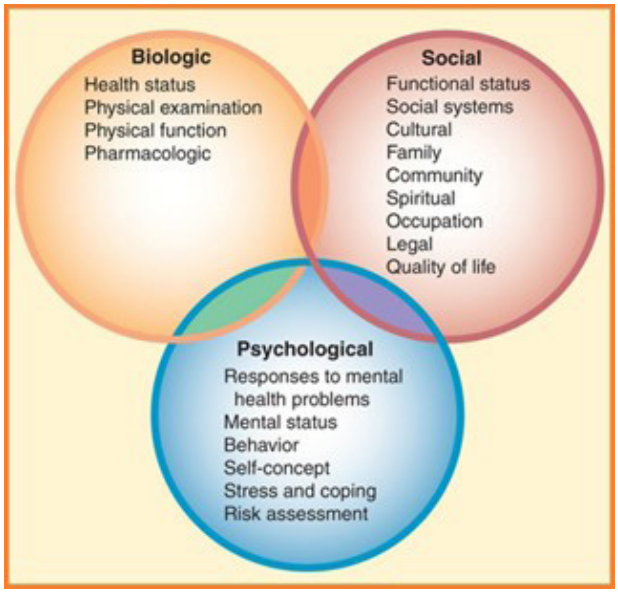
Nursing diagnosis and planning

Most healthcare facilities have an existing form to guide the nurse in data collection. The data collection process assists the nurse in developing a nursing diagnosis list. After identifying real and potential problems, the nurse develops written nursing diagnoses to address each problem. Nursing diagnoses are important in structuring appropriate, efficient nursing care while serving as a common language nursing team members. Prioritization is also based on Maslow's Hierarchy of needs so that physiological and safety needs that are outlined in nursing diagnoses will be addressed first. The nursing diagnosis drives the planning process in the care of patients with psychiatric-mental health disorders. Implementation of interventions is driven by goals established during the planning process. Short- and long-term goals must be observable, measurable (i.e., goals or outcomes that can be evaluated) and realistically attainable in the given time frame and setting. Identifying contributing factors and behavioral symptoms can directly lead to the development of short- and long-term goals that help evaluate progress. Interventions for this population will always include therapeutic communication and the mental status examination (Boyd, 2018).

The biopsychosocial framework

The biopsychosocial framework is a well-accepted, holistic model for organizing healthcare issues (Boyd, 2018). Three interdependent domains have separate treatment focus but interact to provide a framework for implementing nursing care through a systematic process.

The *biologic domain* is related to functional health patterns in mental health such as sleep, exercise, and nutrition. Pharmacologic principles in medication administration are related to neurobiological theories. The *psychological domain* contains the interpersonal dynamics that influence emotions, cognition, and behavior. This generates theories and research critical in understanding symptoms and responses in mental disorders. Therapeutic communication techniques exist in this domain, as there are many cognitive and behavioral approaches in patient care. The *social domain* accounts for the family and community influences in mental disorders. While these influences do not cause mental illness, manifestations and disorders are significantly affected by these factors.



Boyd, 2018

A comprehensive nursing assessment enables the nurse to make sound clinical judgments and plan appropriate interventions. Assessment skills in psychiatric nursing are essential in-patient care. Although data collection and assessment vary among clinical agencies, the psychiatric examination consists of two parts: the psychiatric history and the mental status exam. Patients are often reluctant to discuss mental illness because of the associated stigma. Clinical reasoning in nursing practice depends on critical thinking skills such as problem solving and decision making, where nurses must analyze, interpret, and evaluate biopsychosocial data in the context of the nursing process.

THE MENTAL STATUS EXAMINATION

The mental status examination is a structured means of evaluating the psychological, physical, and emotional state of a patient with a psychiatric disorder to facilitate appropriate healthcare treatments. The nurse may also identify significant problem areas to be addressed in the treatment plan. Mental status exams are an essential tool for evaluating the safety of the patient and caregivers. Although each healthcare facility may vary slightly in its approach, all mental status exams include the same basic elements. These include an assessment of the patient's appearance, behaviors, thoughts, and moods. These are called the ABC's of MSE: (1) A-appearance, (2) B- Behavior and (3) C- Cognition which includes mood, affect and speech. Speech is a reflection of cognition (https://psychscenehub.com/psychinsights/ten-point-guide-to-mental-state-examination-mse-in-psychiatry; Boyd, 2018).

Appearance

Appearance includes primarily objective data based on observations of the patient's general appearance. The nurse assesses the patient's overall hygiene and grooming, considering gender, apparent age, height/weight, dress, odors, and tattoos/piercings. Height and weight should be documented along with nutritional status. The nurse evaluates if the patient looks the stated age since chronological age may not be a reflection of the client's physical/mental status. For example, a patient appears in their 50s, but the actual age is 35, suggesting poor self-care or illnesses (Boyd, 2018).

Behavior

The patient's behavior should be noted during the interview. Consider any mannerisms, notable movements such as agitation, physical slowing (retarded movements), tics, or other abnormal movements. It is important for the nurse to be developmentally and culturally aware during the mental status examination. For example, American culture considers eye contact to be a sign of respect and attention, but other cultures deem eye contact as offensive, challenging, or arrogant (Boyd, 2018).

Mood and affect

Mood is subjective (whatever the patient states) so this must be asked directly (e.g., How is your mood?) and is typically documented in quotations (Mood is "happy"). Affect is objective data (the nurse's observations) based on clinical descriptors that take into account the tone, range, and quality, together with facial expressions and body language that reveal the emotional state or feelings of the person. Mood and affect do not necessarily have to be consistent or similar. For example, a patient may state that their mood is "fine" but through their presentation they are expressing significant difficulty in their emotions with anger, sadness, or depression. Affect is the facial expression, body language, voice, or tone that reveals the emotional state or feelings of a person (Boyd, 2018).

A *dysphoric mood* indicates that the patient is persistently depressed, lethargic, apathetic, or "down" and is usually accompanied by a depressed affect. However, the affect may also be described as anxious or flat, meaning that there is no facial expression of feelings. A *euphoric mood* is an elevated emotional state that may be associated with an affect that is giddy, cheerful, or excessively bright. A *labile affect* is one that is rapidly changing and unpredictable – the patient may be cheerful, then suddenly become enraged with little provocation or may burst into tears unexpectedly. A labile affect can accompany various psychiatric disease states such as depression or psychosis. Substance use can also affect the patient's mood in many ways, depending on the degree of intoxication, the substance used, and any withdrawal symptoms. Some medications can interfere with the physical expression of an emotion, resulting in a flat or blunted affect (Boyd, 2018).

Thought processes

Thought processes refer to the way thoughts are organized and structured. One can think of thought process as HOW one is thinking and thought content as WHAT they are thinking. Speech assessment reveals both. Normally, thoughts are logical, sequential, and easily understood by others (in the absence of a known speech or communication disorder). Patients with disorganized thoughts may respond to questions with nonsensical speech because speech often reflects the thought process. There may be difficulty in performing simple activities such as bathing or eating without assistance, even in the absence of a physical impairment. Patients may mix up or confuse medications when a structured system (such as a weekly pill dispenser) is not available. Thoughts can be rapid, racing, or slowed. Poverty of speech can occur where questions are answered with one or two words and patients may be unable to expand on responses or use their imagination. Thoughts can be either abstract or concrete (Boyd, 2018).

A patient's thought processes may also show flight of ideas, as in the following example: "I came here in an ambulance. I wish I had more money! Did you see that TV show about Pekingese dogs the other night?" When a patient is experiencing a flight of ideas, speech is often accelerated and thoughts are random, abruptly changing with little association between thoughts (Boyd, 2018). When assessing a patient's thought processes, the nurse might also note the phenomenon of word salad. In a word salad, the patient's statements have no logical connections, and the thoughts are jumbled – for example: "I don't. Here, he said. My house. Mouse. Spouse." The previous statement also serves as an example of clang association, which is a pattern of using words because they have similar sounds and not because of the actual meanings of the words. A patient may use neologisms or words that don't exist in the English language. Words such as "frugelzip" or "rappeliciosity" will have a meaning that is clear only to the patient.

Thought content

Thought content refers to what the patient is thinking about. Initially, it is helpful to assess preoccupations or obsessions about real-life events, such as finances, employment, or relationships (Boyd, 2018). Sometimes a patient can experience intrusive or ruminating thoughts. An intrusive thought is an unwelcome idea that occurs without conscious effort, and ruminative thoughts

are thoughts that seem *stuck* in the patient's mind. An obsessive patient may have ruminative thoughts that may be unusual, such as a desire to check the door repeatedly to ensure it is locked or the belief that germs may be everywhere. Obsessive thoughts will often lead to compulsive behaviors – such as ritualized handwashing – in part as an attempt to relieve intrusive thoughts and their accompanying anxiety. The nurse's role is to help the patient understand that these thought processes are irrational.

Thought content problems are of essential importance. *Hallucinations* are false sensory perceptions (Boyd, 2018). Auditory, visual, olfactory, gustatory, or tactile symptoms may be present. Auditory hallucinations, such as hearing voices, are the most common in psychiatric disorders (Boyd, 2018). Visual hallucinations are false visual perceptions, such as seeing people who are not present. Patients can also experience a tactile hallucination, known as a false perception of touch (Boyd, 2018). Tactile hallucinations can present as "hands touching me" or "bugs crawling on me" and can exist with psychological or medical conditions such as withdrawal. When caring for a patient experiencing hallucinations, it is important to remember that the brain perceives the reported sensation, meaning that to the patient, it is very real. It is important for the nurse to address hallucinations with the patient; however, nursing judgment on how to therapeutically address them is critical. Initially, pointing out that the hallucination does not exist may jeopardize the development of a secure nurse-patient relationship; however, rationalizing with and helping the patient reason are important elements in the progression of treatment.

Delusions are fixed false beliefs (Boyd, 2018). The patient experiencing a delusion is certain that something is true, even when there is no substantiating evidence to prove the belief. Paranoid patients may be frightened as they often believe they are being watched, monitored, or spied upon by others. These individuals may report cars following them or mysterious phone calls late at night. Occasionally, a patient with paranoia may fear being poisoned and refuse medications or food. Religious delusions can also occur where the patient may feel persecuted by demons or may be very excited about a special relationship with God or with angels. Careful assessment by the healthcare provider is important to determine a patient's baseline religious beliefs so as not to label a thought as delusional when it is a well-accepted belief for the patient. Somatic delusions are uncomfortable beliefs that there is something wrong with one's body (Boyd, 2018). For example, some patients may believe that their bowels are necrotic or dead or may believe that their brain is missing.

Other delusions may exist such as a belief that aliens are broadcasting signals, or a belief that loved ones have been replaced by clones. It is always essential to determine what feelings are elicited in the patient because of the delusional thoughts. Paranoid thoughts will drive fear and fight-or-flight responses. The patient may set up protective traps around the home to prevent others from entering. Religious delusions may be pleasant and make the patient feel special, or they may be so persecutory that the patient becomes depressed and suicidal. Somatic delusions can lead to excess visits to healthcare providers and may result in the label of "hypochondriac" for the patient.

Ideas of reference can also occur in which the patient may believe that all events in the environment are related to or about them (Boyd, 2018). Patients experiencing ideas of reference may believe that, when in a group setting, others are talking about or ridiculing them (Boyd, 2018). Sometimes, ideas of reference are associated with grandiosity, or the belief that one is especially important or powerful (Boyd, 2018). An elderly homemaker who suddenly believes herself to be the next Marilyn Monroe may be experiencing grandiosity. Grandiose patients attempt to convince others of their importance and may present with perceived rude or arrogant behavior patterns.

Cognition and memory

Cognitive abilities are the elements of thinking that determine attention, concentration, perception, reasoning, intellect, and memory (Boyd, 2018). Attention span is particularly important in evaluating the mental status because a decreased attention span often limits comprehension. Decreased concentration levels and distractibility may occur in patients with disorders that affect attention, as well as for those with depression and other mental health concerns.

The nurse can assess the patient's perception by asking open-ended questions that encourage description, such as "What makes you feel anxious?" (Boyd, 2018). Intellect is assessed through clinical assessment as well as intelligence testing (American Psychiatric Association, 2020). Intelligence quotients (IQs), as well as cognitive, social, and psychomotor capabilities, are assessed to determine intellectual function. Intellectual disabilities are categorized as mild, moderate, severe, or profound. Although IQ scores can serve as a parameter for these categories, the level of severity is determined by adaptive functioning (American Psychiatric Association, 2020).

An assessment of memory consists of three basic parts: immediate recall, recent memory, and remote memory (Boyd, 2018). A simple test of recall is to give the patient three items to remember and then 5 minutes later ask the patient to state those items. *Immediate recall* can be quickly determined by asking what a patient consumed for breakfast. *Recent memory* is recall of one to several days. Questions regarding family members' names or place of residence help assess recent memory. *Remote memory* is recalled from several days to a lifetime. Asking patients where they grew up, what their parents' names were, or where they went to school readily provides this information.

Memory assessments help in differentiating a thought disorder from a dementia disorder. Patients with a primary psychiatric disturbance may be delusional in their beliefs but extremely accurate in memory and recital of facts and dates. A patient with early dementia may lose some short-term memory first, progressing to the loss of immediate recall, then finally to long-term memory loss (Boyd, 2018). *Orientation* means that patients are aware of who they are (person), where they are now (place), the approximate time and date (time), and awareness of the circumstances (situation). A disoriented person may be suffering from a cognitive disorder, drug or alcohol use or withdrawal, or several physical or psychological health problems.

Insight and motivation

Insight refers to patients that demonstrate understanding of their illness and the steps necessary to treat or manage the illness. The determination of a patient's level of insight is often associated with treatment adherence. The goal is that understanding leads to adherence. Occasionally, nurses encounter patients who demonstrate good insight and knowledge, but continue to display nonadherence to recommended treatments. Nurses should ask these patients about barriers to treatment, such as financial constraints or concerns regarding health insurance. The stigma of having a psychiatric diagnosis may lead the patient to feel ashamed or angry. Anger may be causing the patient to intentionally deny and refuse adequate treatment. Hidden motivations, such as the defense mechanisms may also have a significant impact on the patient.

Judgment

Healthcare choices can reflect *judgment*. This can be a positive or negative reflection on an ability to reach a logical decision about a situation (Boyd, 2018). For example, the patient with diabetes who continues to consume a diet high in sugar is demonstrating poor judgment. Actions and behaviors are often signs of judgment capabilities. A manic patient may spend their life savings on a trip or a lottery ticket. However, once in the normal or melancholic state, the patient may have no memory of the incident. Proper evaluation of the mood state when the actions were carried out is an important part of the assessment. Conversely, the patient who recognizes that an increase in paranoia is a sign of decompensation and seeks out emergency treatment is demonstrating good judgment. A patient's insight, or awareness of their own feelings, relates to the ability to display logical judgment (Boyd, 2018). Assessing and understanding a patient's ability to make positive or negative choices is an important piece of planning effective mental healthcare.

Safety

Finally, an evaluation of safety is important in any mental status assessment. The essential areas to examine include safety of self and safety of others. The nurse should determine if the patient has thoughts or urges of intentional harm. When suicidal thoughts are noted, inpatient treatment must be considered. Assessing suicide risk consists of asking the patient about a suicide plan, suicidal intent, and the available means to harm oneself. A well-developed suicide plan with means at hand may necessitate forcing an involuntary hospital stay, whereas an impulsive episode of self-mutilating may be best treated by an intensive outpatient program with family supervision. For example, a hunter who thinks about shooting himself is at much higher risk than the office worker who doesn't own or have access to a gun. Determining the lethality of the means available is also essential.

Patients experiencing extreme emotional pain may also self-mutilate by cutting or burning their arms, legs, or other areas. Although this is not considered suicidal behavior, it is high-risk behavior that indicates significant emotional distress.

The nurse should also determine the degree of risk of harm to others. There are two distinct areas in which patients with a psychiatric disorder may lose their rights to confidentiality: a threat to harm or kill another person and the report of child or elder abuse (Halter, 2018; U.S Department of Health and Human Services, 2019). *Duty to warn is an obligation to warn third parties when they may be in danger from a patient* (Halter, 2018, p. 99; Duty to Warn). The nurse must use all means necessary to reasonably contact the individual at risk, including notifying the police. In most healthcare settings, there are policies to ensure the report is made accurately and documented appropriately. Across the United States, nurses are considered mandatory reporting agents when a patient offers knowledge of abuse, molestation, or neglect of vulnerable patients. The nurse is obligated to report this to the local Child Protective Services agency (Duty to Warn). However, there is a conflict between state and federal law when child abuse is revealed during drug and/or alcohol treatment, and a court order is required for disclosure (Halter, 2018). State laws vary and healthcare providers should be very clear on their respective state laws and facility policy in terms of confidentiality.

THE THERAPEUTIC RELATIONSHIP

Hildegard Peplau applied Sullivan's teaching to her own theory, which nurses still use today in practice. Peplau viewed the nurse-patient relationship as representative of the patient's relationship with other important people in their life (husband, wife, mother, father, etc.). By analyzing the dynamic between the self and the patient, the nurse draws inferences about how the patient interacts with others and helps the patient to develop insight into these behaviors to promote change. Furthermore, Peplau applied Sullivan's views on anxiety as a driving force behind behaviors and related these views to nursing practice and a patient's ability to perceive and learn. For example, mild anxiety promotes learning, whereas severe or panic levels of anxiety prevent learning and distort perceptions (Keltner, 2014, p. 87).

From her own research, Peplau developed the therapeutic model of the nurse-patient relationship and introduced this in 1952 in her book entitled *Interpersonal Relations in Nursing: A Conceptual Frame of Reference for Psychodynamic Nursing*. Today, this framework is relevant as a basis of nurse-patient relationships. The nurse performs several roles while engaged in the relationship, including advocate, teacher, role model, and healer. Peplau saw these roles as significant in each phase of the nurse-patient relationship, all of which overlap and work together to facilitate interventions. There are traditionally three phases in the therapeutic relationship: the initiation (orientation) phase, the working phase, and the termination phase (Edberg, Nordmark, & Hallberg, 1995). Peplau (1952) identified five phases: orientation, identification, exploitation, resolution, and termination.

In the orientation phase, the nurse establishes rapport and begins to discuss the parameters of the relationship. The nurse also collaborates with the patient to identify the problem and extent of intervention needed, and how the patient and the nurse will work together to find solutions (Jones & Bartlett Learning, n.d.). Here the nurse can discuss confidentiality while developing the plan of care. The nurse will also address termination of the relationship. This involves informing the patient that the interactions will take place over a specific period. This helps the patient plan for the termination phase so that complications are less likely to arise when the nurse-patient relationship ends. An example of an orientation-phase introduction is:

> *Good morning, Mr. Jamison. I am Chris and I will be your nurse while you are a patient. I would like to arrange a time to meet this morning to discuss how we will work together to develop the plan of care for the next week. Together we will develop strategies to manage your depression and we will continue to meet daily to evaluate what you have accomplished before you are discharged.*

In the working phase, identification, exploitation, and resolution take place. During identification, the patient begins to identify with the nurse independently, dependently, or interdependently (Jones & Bartlett Learning, n.d.). It is during identification that the nurse reinforces the understanding of the meaning of the patient's situation (Jones & Bartlett Learning, n.d.). During exploitation, the patient utilizes the nurse's services based on personal needs, and once needs are resolved during resolution, mature goals emerge (Jones & Bartlett Learning, n.d.). During this working phase, the patient can practice new techniques or behaviors to manage thoughts, feelings, and behaviors that have contributed to their symptoms and created problems in relationships, occupational functioning, or interpersonal well-being. These skills and strategies can be practiced within the safety of the inpatient, partial hospital, or outpatient environment. The nurse helps to promote problem-solving skills, self-esteem, and behavioral changes. Unconscious thoughts and behaviors may arise in the working phase. It is important to address lingering or past issues to aid in the resolution of present symptoms. The patient learns about *self*, develops coping mechanisms, and tests new behaviors. During this phase, transference and countertransference often occur. Transference takes place when the patient unconsciously displaces feelings for another onto the nurse (Boyd, 2018). Likewise,

countertransference can occur when the nurse's emotions may also be displaced onto the patient (Boyd, 2018). The nurse's self-awareness and ability to maintain healthy boundaries and remain patient focused are important elements of the nurse-patient relationship.

The termination phase is the final phase of the relationship. In this phase, the nurse and the patient discuss the goals and outcomes achieved, review coping skills, and determine how to incorporate new behaviors into life outside of the facility. Closure of the relationship occurs so that the patient and the nurse can move forward. However, this phase can elicit strong emotions of loss or abandonment. For the nurse, feelings of guilt can arise if the patient has not met all goals. It is not appropriate for the nurse to meet with the patient once discharged. The nurse can plan for discharge by recalling successes achieved with the patient and taking pride in helping the patient gain positive outcomes to date. The patient may experience feelings of abandonment which may be revealed in behavior or emotions. For example, the patient may avoid signing necessary papers or have sudden outbursts. The nurse may need to discuss the importance of the termination phase with the patient, help redirect the patient to reflect on successes achieved while working together, and refer the patient to the next level of care, if appropriate (https://psychscenehub.com/psychinsights/ten-point-guide-to-mental-state-examination-mse-in-psychiatry/).

THERAPEUTIC COMMUNICATION

Therapeutic communication and the therapeutic relationship are a significant part of mental health nursing. Hildegard Peplau reiterated this sentiment in her work many times, stating that understanding was central to the nurse-patient relationship (Ramesh, 2013). Therapeutic communication differs from social communication in that patient goals are the central focus of the interaction. The goal may be to solve a problem, examine self-defeating behaviors, or promote self-care. Additionally, therapeutic communication involves active listening and responding in a way that creates rapport and moves the patient toward the end goal.

Therapeutic communication involves trust, boundaries, empathy, genuineness, and respect for the patient, regardless of the patient's condition (Halter, 2018; Morgan & Townsend, 2019). Sometimes, recognizing an individual's behaviors and making statements can add to the assessment data and provide insight into the patient's current state. An example is "I notice you are pacing more today." Allow the patient to respond. Remember that no response from an individual provides further insight into the individual's state of mind.

One important aspect of therapeutic communication is the therapeutic use of self. This is when the nurse uses self-disclosure in a goal-oriented manner to promote trust and teach the patient how to view the feelings or actions of others (Riley, 2015). Use of self, however, should not reveal personal details. Effective use of self involves self-reflection, self-awareness, and self-knowledge. As in any nurse-patient interaction, it is important to remain objective and nonjudgmental while considering the patient's needs. Nonverbal communication can tell the nurse a lot about the patient. Awareness of how the patient gestures or moves while conversing is vital in determining verbal/nonverbal congruence. Sitting across from the patient with an open stance demonstrates openness and a willingness to listen. An angled position or sitting side by side can promote comfort. Additionally, the doorway should never be blocked; this promotes safety as well as prevents the patient from feeling trapped or confined (Boyd, 2018).

A general opening, such as asking how the patient slept, can help facilitate the conversation. Gradually start asking open-ended questions to encourage the patient to engage, such as "Tell me a little about what has been going on." If anxiety or nervousness is observed, the nurse may need to step back and alter the questions or provide encouraging statements such as *go on* or *tell me more about that*. Those types of statements confirm that the nurse is listening and is open to knowing more about the topic. *Why* questions can be perceived as challenging and judgmental (e.g., "Why would you do that?"). Reword the question so that the patient can answer without feeling belittled or betrayed. It is important to get as much of the patient's history as possible. However, this may be difficult if the patient has severe symptoms that may limit their ability to carry on a conversation. In that case, observation will take precedence in the interview.

Samples of therapeutic and nontherapeutic communication techniques are provided in Table 1. *Therapeutic and nontherapeutic communication techniques.* Each of these techniques will elicit responses that give the nurse insight into the patient's thoughts and emotions (Boyd, 2018). Use open-ended questions so that the patient can respond with more than a yes or no answer. Give the patient enough time to answer the question as well. Avoid using jargon or medical terminology (https://publichealth.tulane.edu/blog/communication-in-healthcare/).

Table 1. Therapeutic And Nontherapeutic Communication Techniques

Therapeutic	**Example**
Open-ended question	"How are you feeling?"
Offering self	"I'll sit here with you for a while."
Giving general leads	"Go on … you were saying."
Silence	Sitting quietly.
Active listening	Leaning forward, making eye contact, and being attentive.
Restating	"So, what you're saying is …"
Clarification	"I don't quite understand. Could you explain …"
Making observations	"I notice that you shake when you say that."
Reflecting feelings	"You seem sad."
Encouraging comparisons	"How did you handle this situation before?"
Interpreting	"It sounds like what you mean is …"
Nontherapeutic	**Example**
Closed-ended question	"Did you do this?"
Challenging	"Just what do you mean by that, huh?"
Arguing	"No. That's not true."
Not listening	Body turned away, poor eye contact.
Changing the subject	(Patient states he is sad.) "Where do you work?"
Being superficial	"I'm sure things will turn out just fine!"
Being sarcastic	"Well, that's not important or anything. Not!"
Using clichés	"All's well that ends well."
Being flippant	"I wouldn't worry about it."
Showing disapproval	"That was a bad thing to do."
Ignoring the patient	"Did anyone see the news today?"
Making false promises	"I'll make the doctor listen to you!"

(Boyd, 2018)

During the evaluative process, the nurse will assess the use of defense mechanisms that may indicate the need for ongoing revision of the plan of care. Consistent evaluation of goals and progress is integral for successful nursing care of the patient with a psychiatric-mental health disorder. Sigmund Freud, the grandfather of psychotherapy, believed that most psychiatric disturbances arise out of childhood experiences and the way human beings respond to their environment, and are based on unconscious drives or motivations (Halter, 2018). Freudian therapy, developed in 1936 and referred to as psychoanalysis, attempts to bring the unconscious into consciousness to allow individuals to work through past issues and develop insight into present behaviors. Although classic psychoanalysis as developed by Freud is rarely used today, Freud's understanding of anxiety as well as the unconscious mind are significant drivers in understanding the human response with defense mechanisms (Halter, 2018).

Any behavior or psychological strategies employed (often unconsciously) to protect a person (the real self or 'ego') from discomfort, uncomfortable emotions, anxiety, or tension that may result from unacceptable thoughts or feelings is considered a defense mechanism. Most individuals use defense mechanisms from time to time, but problems may occur when they are used exclusively or in place of healthier coping mechanisms. Therefore, recognition and nursing interventions focused on adaptive coping strategies should be implemented before working to replace the person's usual defense mechanisms. Defense mechanisms are behaviors that an individual uses to deal with stressors. Defense mechanisms can be beneficial and protective for the patient, or they can be counterproductive and maladaptive. Table 2. Defense mechanisms provides an overview of commonly utilized defense mechanisms; a brief discussion of some of these defense mechanisms follows (https://www.ncbi.nlm.nih.gov/books/NBK559106/)

Table 2. Defense Mechanisms

Defense Mechanism	Definition	Example
Repression	Involuntarily forgetting painful events.	A woman who was sexually abused as a child cannot remember that it occurred.
Suppression	Voluntarily refusing to remember events.	An emergency room nurse refuses to think about the child who is dying from injuries sustained in an auto accident.
Denial	Refusing to admit certain things to oneself.	An alcoholic man refuses to believe that he has a problem, in spite of evidence otherwise.
Rationalization	Trying to prove one's actions are justifiable.	A student insists that poor academic advice is the reason he cannot graduate on time.
Intellectualization	Using logic without feelings.	A father analyzes why his son is depressed without expressing any emotions of concern.
Identification	Attempting to model one's self after an admired other.	An adolescent tries to look and dress like his favorite musician to feel stronger and more in control.
Displacement	Discharging pent-up feelings (usually anger) on another.	A child who is yelled at by her parents goes outside and kicks the dog.
Projection	Blaming someone else for one's thoughts or feelings.	A jealous man states that his wife is at fault for his abuse of her.
Dissociation	Unconsciously separating painful feelings and thoughts from awareness.	A rape victim "goes numb" and feels like she is floating outside of her body.
Regression	Returning to an earlier developmental level.	A 7-year-old child starts talking like a baby after the birth of a sibling.
Compensation	Covering up for a weakness by overemphasizing another trait.	A skinny, nonathletic child becomes a chess champion.
Reaction formation	Acting exactly opposite to an unconscious desire or drive.	A man acts homophobic when he secretly believes he is gay.
Introjection	Taking on values, qualities, and traits of others.	A 12-year-old girl acts like her teacher when the teacher is out of the room.
Sublimation	Channeling unacceptable drives into acceptable outlets.	An angry woman joins a martial arts club and takes lessons.
Conversion	Converting psychiatric conflict into physical symptoms.	A lonely, elderly woman develops vague aches and pains all over.
Undoing	Trying to counteract or make up for something.	A man who yells at his boss sends her flowers the next day to "make up."

(Boyd, 2018)

Denial

Denial indicates an inability to believe or act on some type of news or information. This may be attributed to unconscious forces that override a person's rational thoughts or the premise that changing a behavior is more difficult and anxiety provoking than continuing the behavior. For example, a man with lung cancer may continue to smoke because quitting smoking may mean acknowledging a life-threatening illness, or a woman with alcoholism may continue to drink to avoid facing a dysfunctional marriage. Denial provides protection by allowing the psyche to slowly grasp traumatic events (e.g., death of a loved one), but it becomes maladaptive when the person can't move on. Understanding denial as a psychological process is important, especially when it may seem that a patient is not adhering to a plan of care (https://www.ncbi.nlm.nih.gov/books/NBK559106/).

Repression and suppression

Repression and suppression are defense mechanisms that are commonly confused with each other. In repression, a person cannot voluntarily recall a traumatic event such as a rape or terrorist attack (Halter, 2018). Only through therapy and sometimes hypnosis can the memories start to painfully resurface; when they do, the event will be as acutely distressful as if it had just happened. In suppression, a person chooses to ignore or forget painful events; however, when queried, they can instantly recall them (Halter, 2018). This can be very productive for the nurse in an emergency, when they are able to temporarily push aside personal feelings and reactions to deal with the crisis at hand (https://www.ncbi.nlm.nih.gov/books/NBK559106/).

Displacement

Displacement occurs in our everyday lives. For example, when a person has a bad day at work and goes home and takes it out on their spouse or children, displacement has occurred as the person has shifted their feelings away from the intended object (job, boss, etc.) and onto an innocent and unsuspecting other. Displacement can be the defense mechanism behind anger outbursts such as road rage (https://www.ncbi.nlm.nih.gov/books/NBK559106/).

Rationalizing

Rationalizing is the attempt to explain away situations while not taking responsibility for one's own actions. A senator who is arrested for taking gifts or money from lobbyists may try to rationalize this behavior by saying, *everyone does it, or that's the way you get business done* (https://www.ncbi.nlm.nih.gov/books/NBK559106/).

Identification

An adolescent who tries to emulate a respected authority figure is using identification. Identifying with others and trying to be like them is adaptive and useful when the role model is a positive influence (e.g., father, mother, minister), but it can be very maladaptive when the role model is a negative influence (e.g., gang leader, rock star with drug problems). The psychiatric nurse who understands the various defense mechanisms patients in emotional distress use will be able to develop a treatment plan that addresses the use of defense mechanisms and presents alternatives that are more conducive to mental health and improved quality of life (https://www.ncbi.nlm.nih.gov/books/NBK559106/).

Self-Assessment Quiz Question #3

Which best describes the meaning of defense mechanisms?

a. Behaviors used to deal with stressors.
b. False sensory perceptions.
c. Beliefs that lack substantiation.
d. Overall emotional state.

THERAPEUTIC APPROACHES IN MENTAL HEALTH

Milieu therapy

The word milieu means surroundings or environment; milieu therapy is also referred to as therapeutic community. Milieu therapy is a structuring of the environment in order to affect behavioral changes and improve the psychological health and functioning of the individual. The goal of milieu therapy is to manipulate the environment so that all aspects of a patient's hospital environment are considered therapeutic (Townsend, 2019). Within this setting, the patient is expected to learn adaptive coping, interaction, and relationship skills that can be generalized to other aspects of the patient's life. Although milieu therapy was originally developed for patients in the inpatient setting, these principles have been adapted for a variety of outpatient settings (https://easpublisher.com/media/articles/EASJNM_22_129-135.pdf)

Care of patients in the therapeutic milieu is directed by an interdisciplinary treatment team, but overall management is the responsibility of the nurse. The initial assessment is made by the nurse or psychiatrist and the comprehensive treatment is developed by the treatment team. Basic assumptions of milieu therapy include the opportunity for therapeutic intervention, the powerful use of peer pressure within the environment, and inappropriate behavior can be addressed as it occurs (Boyd, 2018).

There are certain conditions that promote a therapeutic community.

1. The patient is protected from injury from self or others.
2. The patient's physical needs are met.
3. Programming is structured, and routines are encouraged.
4. Staff members remain relatively consistent.
5. Emphasis is placed on social interaction among patients and staff.
6. Decision-making authority is clearly defined.
7. The patient is respected as an individual and is encouraged to express emotion
8. The patient is afforded opportunities for freedom of choice.
9. The environment provides opportunities for testing new behaviors.

(Townsend, 2019;
https://currentnursing.com/pn/milieu_therapy.html)

It is understood that basic physiologic needs are fulfilled, and safety is paramount. Within this environment, a democratic self-government exists through community group participation. This promotes member interaction and communication. The therapeutic milieu provides structure and consistent limit setting at a time when individuals need it the most. These elements provide an assessment of the patient's progress toward treatment goals. The nurse assumes responsibility for the overall management of the therapeutic milieu including assessment, safety and limit setting, medication administration, and education.

Effects of the environment can easily be understood by thinking about common events in one's own life. Going to a party may evoke a sense of festivity, joy, and excitement; going to a funeral can cause somber feelings of sadness; when walking into a quiet library, a person may feel the need to whisper and walk softly; and a starkly painted, tiled hospital room may lead us to feel fearful, anonymous, or disengaged. Even schools reflect environmental or milieu manipulation and effects (consider a Montessori-style school compared with a stricter military school). Inpatient psychiatric settings and residential settings are the most common places in which milieu therapy occurs. A patient who is disorganized, paranoid, or agitated responds better to an environment that is calm, well structured, and predictable, with staff persons who are pleasant in nature but consistent, directive, and firm.

Self-Assessment Quiz Question #4

The nurse is explaining milieu therapy to a group of students. What is the primary role of the nurse in milieu therapy?

a. Conducts individual, group and family therapy
b. Directs drama that portrays real life situations
c. Assumes responsibility for management of milieu
d. Focuses on rehabilitation and vocational training

Group therapy

Irvin Yalom, MD, has been highly influential in the development of group therapy. Dr. Yalom's first book, *The Theory and Practice of Group Psychotherapy* (1970), became a foundational text for many psychotherapists and advanced practice nurses interested in group therapy. Dr. Yalom postulated that when individuals are grouped together, certain characteristics of the individuals will emerge that are reflective of family-of-origin and childhood issues (1970). In therapy sessions with groups of people, these negative or destructive childhood events can be reworked and reframed, leading to healthier adult coping responses while the group members develop identities and go through phases.

In a counseling group setting, members can discuss stressors in a safe environment. The group often provides a sense of community and the feeling that the individual is not alone in dealing with their problems (Corey, Corey, & Corey, 2013). Dr. Yalom termed this concept universality (Yalom & Leszcz, 2014). Thus, universality, or the camaraderie sense of *we are all in this together*, serves to encourage trust and move the group into productivity. Individual group members grow and develop self-awareness through the relationships developed and feedback gathered from those around them (Corey et al., 2013).

Yalom's stages include orientation, conflict development, cohesion, and working (Yalom & Leszcz, 2014). There are many other theories regarding groups; although they may differ in certain ways, they all show how the group forms interpersonal relationships cohesively. The group leader recognizes what phase the group is in and helps facilitate progression toward the group's goals.

The best size for a therapy group is usually 6 to 12 members (Boyd, 2018). In larger groups, some members may be ignored or can more easily avoid participation. In smaller groups, the gatherings can turn into a series of individual therapy sessions with the group leader while everyone else watches. Training in facilitation of therapy groups is standard in graduate programs for advanced practice nurses, psychiatric and psychological master's programs, and clinical doctoral programs.

Psychoeducational groups

Psychiatric nurses are often responsible for facilitating psychoeducational groups in mental health settings, where there is a defined group leader and specific content or topics to be discussed. Topics are frequently based on developing skills important to daily living and maximizing the quality of life. Some topic examples include strategic management of symptoms, medication education, coping with stress, and relapse prevention. Psychoeducational groups emphasize group member interaction and participation, but they also emphasize learning new behaviors. The facilitator may organize hands-on activities and sometimes give homework assignments. Other non-nursing personnel may conduct psychoeducational groups; however, psychiatric nurses are in a unique position based on their education, training, and holistic approaches, to help bridge the gap between patients' physical and mental health. Psychoeducational groups may be larger than strictly therapeutic groups, although larger groups can be difficult to manage depending upon the personality mix of those attending (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7001357/).

Cognitive-behavioral therapy (Individual therapy)

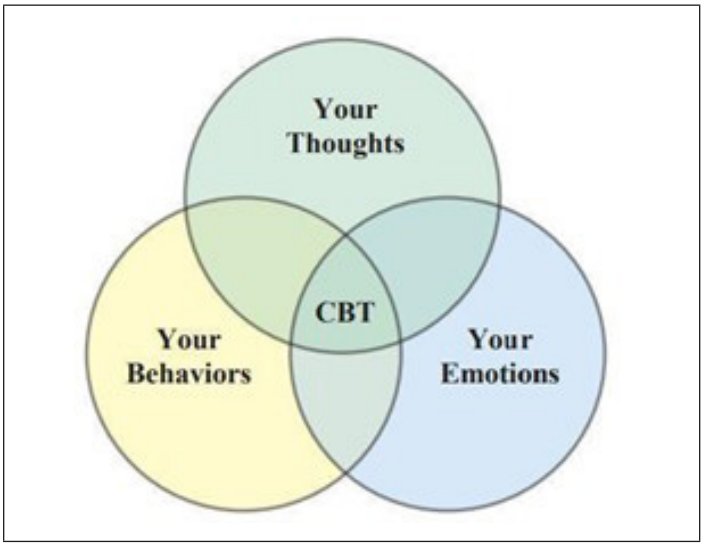
Cognitive-behavioral therapy (CBT), pioneered by Aaron Beck (1967) and Albert Ellis (1973), focused on the relationship between a patient's perceptions about events and the resultant feelings and behaviors. This cycle of thoughts that influence feelings and behaviors is demonstrated in this example:

> *Imagine you are driving down the interstate at 75 miles per hour. You check your rear-view mirror and see the flashing lights of a state trooper. Knowing that you are driving over the speed limit, you are certain you will be pulled over and given a traffic ticket. You think of the two glasses of wine you just consumed with dinner. "What if my blood alcohol level is too high? I can't be arrested! I would lose my job! They'll take away my nursing license!" Your palms get sweaty and your heart starts to race. Barely able to contain your panic, you swerve quickly into the right-hand lane without signaling and cut off a car coming up behind you. The car honks, you pull onto the shoulder, and finally stop. In dread, you look out the window for the trooper, who drives past you down the highway.*

In this example, the driver's thoughts of breaking the law by speeding and getting arrested for drunk driving cause the driver to feel anxious and panic, which results in erratic behavior and nearly causes an accident. Now consider this example:

> *Imagine yourself driving down the interstate. You check your mirror and see the flashing lights of a state trooper. You know you're driving over the speed limit, but so are many drivers around you. You think of the two glasses of wine you had with dinner, but you did eat a large portion and you don't feel drowsy – besides, that was several hours ago. You determine that the state trooper must be on the way to the scene of a crime or accident, so you signal a right turn, check your mirrors, and carefully pull over onto the shoulder of the road. The state trooper drives past you and you continue your journey.*

CBT is based on the supposition that behaviors are a result of distorted thinking about situations (Yalom & Leszcz, 2014). These distortions can take the shape of catastrophizing, which involves thinking that the worst that can possibly happen will happen or has happened; perceiving threats where none exist; thinking only of negative outcomes; or making over-generalizations. In anxiety disorders, fear is the driving force for distorted thoughts. These distorted thoughts impact feelings and lead to behaviors such as situational avoidance where objects or places may become a self-reinforcing behavior as the person has no additional life experience to combat the distorted thinking. Cognitive restructuring is used to help the patient examine their beliefs in more detail and to break down the resultant feelings and behaviors into A (antecedent), B (behavior), and C (consequence).



Exposure is a CBT technique that provokes the patient's anxiety over a feared idea or object in a controlled, supportive environment (Boyd, 2018). A person afraid of heights might be asked to work toward standing on a footstool for a minute or two in the clinician's office. Gradual exposure to the situation allows the patient to systematically desensitize to the stressor with tools to manage thoughts and feelings that arise when confronted with the feared stimulus. Flooding exposes the patient to the stressful object or idea all at once; although this technique can be used, trained clinicians should judiciously use it as it may produce panic symptoms. Skills training may also be employed in CBT. This specifically trains the individual based on their needs. Cognitive-behavioral techniques are useful with most psychiatric conditions and mental health states to improve mental flexibility and resilience, moving the person towards health on the health-illness continuum. Helping the patient to identify beliefs (true or false) about situations enables the patient to challenge the beliefs that are detrimental to recovery (McKay et al., 2015). Psychiatric nurses of all levels can utilize the basic skills of CBT in teaching their patients how to reframe distorted thoughts that lead to emotional turmoil and erratic behaviors.

Family therapy (Social theory)

Individuals with psychiatric, mental health, or behavioral problems often live in a family environment. Children and adolescents are still part of the family unit although the nature of "family" may differ in situations concerning foster care or residential treatment centers. Adults may live alone or with others, be married or single, and live with or without children of their own. Even adults who live alone often have significant family relationships with parents, children, or others. The concept of "family" is identified by the patient but usually involves other persons with whom the patient interacts on a frequent basis and in whom the patient has significant emotional investment.

Family therapy is based within the understanding that, although there is an identified patient, problems may arise out of dysfunctions within the system because the family is a unit and problems are relational to each other (Friedman, Bowden, & Jones, 2003; Sexton & Alexander, 2015). Family therapies focus on strengths of the individual patient and the family as a basis for treatment. Understanding how the family functions and relates to one another helps contribute information that is helpful in the development of a plan of care. Family therapy is complex, and master's or doctorate-level clinicians should be utilized for this type of intense treatment. The Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) offers specialized accreditation to marriage and family therapy programs; this encourages programs to continue monitoring and maintaining their rigor and development and demonstrates that programs are meeting industry standards and their own objectives (COAMFTE, n.d.)

Treating the family via emotional or cognitive methods allows problems to be addressed within the family dynamic; treating the patient apart from his or her family alone will not correct these systemic problems, and relapse is likely (Sexton & Alexander, 2015). Cognitive awareness (as in CBT) helps individuals and families recognize the cyclic nature of thoughts creating feelings, which create behaviors, which reinforce thoughts, and which continue circularly. Addressing this from a systems nature allows all members of the family unit to explore their role within this continuum and work toward healthier interactions simultaneously.

Community support groups (Social theory)

Many community support groups exist to help individuals who are experiencing specific mental health problems. Groups exist for gambling addiction, rape and sexual abuse support, bipolar disorder, depression, grief and bereavement, suicide, attention deficit disorder, PTSD, substance abuse, and many more. Support groups differ from therapy groups in several important ways. Support groups are a network of members with similar traits or characteristics; support groups are leaderless – they may have a nominated leader, but that person is also a victim or patient and a group member; support groups are not managed by a healthcare professional; support groups are free or have minimal cost; support groups may meet less frequently than therapy groups but for a longer period of time (years to indefinitely); and support groups are usually self-sustaining. If members lose interest, the group can't find a place to meet, or membership wanes, then the group may end (https://www.frontiersin.org/articles/10.3389/fpsyt.2021.714181/full).

The National Alliance on Mental Illness (NAMI) is the nation's largest grassroots support organization for families and persons affected by mental illness. Established in 1979, NAMI is a powerful lobbying force in Washington, DC, with affiliates in every state and more than 1,100 communities across the country. NAMI focuses on fighting against the stigma associated with mental illness and provides support for families and patients with psychiatric illnesses.

Self-Assessment Quiz Question #5

Which of the following is considered a support group?

a. Cognitive behavioral therapy.
b. Alcoholics Anonymous.
c. Family therapy.
d. Medication education.

BRAIN ANATOMY AND PHYSIOLOGY

Within the brain, several areas influence behaviors and are related to psychiatric-mental health disorders, such as the areas involved in mood, anger, and thoughts. Therefore, it is important for nurses to understand how the brain regulates mood and behaviors. The cortex, the outer surface of the brain, is associated with rational thinking (Halter, 2018). The orbitofrontal cortex, which is in the forehead, regulates sympathetic and parasympathetic signals and houses the executive functions (Norris, 2019). Examples of executive functions include decision making, organizing, and determining right from wrong. Additionally, the cortex is adjacent to other areas of the brain, connecting rational thought to mood.

Several other areas of the brain also have a role in psychiatric-mental health disorders. The frontal lobe, for example, is heavily involved in decision making. The parietal lobe integrates sensory and motor information. The occipital cortex is the vision center. The cerebellum works to create muscle tone, posture, and coordination. The temporal lobe is involved with memory, smells, sounds, and language. The hypothalamus regulates body temperature and metabolism, and research suggests that it plays a role in emotions. The pituitary gland regulates hormones, and the brainstem controls basic vital functions such as respiratory rate, heart rate, reflexes, and movement (Norris, 2019).

The limbic system, which is involved in emotions, has a central role in psychiatric-mental health disorders. The limbic system contains the amygdala, which regulates mood and emotions such as anger; the hippocampus, which regulates memory; and the anterior cingulate, which regulates sensations (Norris, 2019; Stahl, 2020). These areas all work together to compose emotions and the body's responses to emotions. There are millions of connections among these areas. These connections, or pathways of electrical impulses, allow parts of the brain to communicate with one another and respond to stimuli.

NEUROTRANSMITTERS

The presynaptic area located at one end of each neuron holds neurotransmitters. A neurotransmitter is a chemical that carries a message to another neuron. An electrical charge, usually powered by a sodium-potassium channel, causes a reaction from one end of the neuron to the other, releasing the neurotransmitter into the synapse like a gun firing (Norris, 2019; Stahl, 2020). The neurotransmitter then crosses the space or synapse between the neurons and attaches to a specific receptor on the postsynaptic cell. Once the neurotransmitter has delivered the message to the postsynaptic cell, it is released back into the synapse (Stahl, 2020). Once released, the neurotransmitter can be destroyed by specific enzymes or be taken back into the presynaptic area by a process called *reuptake* (Stahl, 2020).

Psychiatric-mental health treatment is based on enabling neurotransmitters with messages to attach to the postsynaptic neurons (Stahl, 2020). Each neurotransmitter attaches to a receptor like a key fitting into a lock. This causes a reaction in the neuron referred to as a *second messenger system*. These exchanges must happen several times before the goal of change in the neurons and brain occurs. Sometimes a message gets lost or is incorrectly transmitted. This can lead to emotional dysregulation and psychiatric symptoms (Stahl, 2020).

Dopamine, serotonin, and norepinephrine are the most important neurotransmitters in mental health. In addition, two amino acids, gamma-aminobutyric acid and glutamate, have a role in psychiatric-mental health, with each having its own effect on mood and behavior.

Dopamine

Dopamine is a neurotransmitter associated with psychosis and influences several areas of the brain. Dopamine regulates movement and coordination, emotions, and decision making. Decreased levels of dopamine can cause Parkinson's disease. Conversely, increased levels can lead to schizophrenia or mania (Stahl, 2020). Dopamine also stimulates the hypothalamus to release sex, thyroid, and adrenal hormones (Stahl, 2020). Antipsychotic medications aim to decrease symptoms of psychosis by enhancing the impact of dopamine on the postsynaptic cells.

Serotonin

Serotonin is a neurotransmitter found in the limbic system, the brain cortex, and the stomach. Research suggests that low levels of serotonin are implicated in depression, whereas excess levels have a role in anxiety, mania, aggression, and possibly schizophrenia. Serotonin is also associated with appetite, mood, aggression, libido, sleep, and arousal, as well as perception of pain (Stahl, 2020). Medications that support serotonin are the first line of action against depression and are components of some antipsychotic medications.

Norepinephrine

Norepinephrine is a neurotransmitter found in various parts of the brain and the brainstem. Norepinephrine regulates mood, cognition, perception, sleep, arousal, and cardiovascular status (Stahl, 2020). Excess levels can trigger a fight-or-flight response and long-term elevations are associated with mania and anxiety. When norepinephrine is depleted, depression can occur. Research suggests that norepinephrine plays a role in the chronic pain that can accompany depression. Medications that increase the messages or actions of receptors that involve norepinephrine are usually antidepressants.

Gamma-Aminobutyric Acid

Gamma-aminobutyric acid (GABA), an amino acid, is an inhibitory protein. It is concentrated in the frontal and temporal lobes of the brain, where it slows down activity. GABA works like a light switch, turning on and off other excitatory molecules (Stahl, 2020). When there is not enough GABA in the brain, anxiety can occur. Medications such as benzodiazepines aim to increase levels of GABA to slow down the brain activity involved in, for example, panic attacks and anxiety.

Glutamate

Glutamate is an excitatory amino acid that functions to open the calcium channel so that neurons fire faster (Stahl, 2020). This causes excitement in the brain. Researchers are currently investigating the role of glutamate in ADHD, anxiety disorders, depression, mania, and mood disorders (Stahl, 2020).

Self-Assessment Quiz Question #6

Dopamine is responsible for which of these symptoms?

a. Sleep.
b. Psychosis.
c. Arousal.
d. Catatonia.

PSYCHOPHARMACOLOGY AND THE BRAIN

Typically, medications that treat psychiatric-mental health disorders work by either increasing or decreasing the activity of neurotransmitter receptor systems in several ways (Stahl, 2020). For example, benzodiazepines aim to slow down brain activity, thus reducing anxiety, by increasing levels of GABA. It is important to remember that the change in the neurotransmitter system either facilitates or inhibits different functions in the brain. Medications can have a single specific target, such as serotonin reuptake inhibitors, or they can target multiple transporters, such as serotonin and norepinephrine reuptake inhibitors.

Simply stated, psychiatric medications block receptors or increase the number of neurotransmitters available for use, thus changing the message at the postsynaptic site. For example, consider a patient with depression who takes a selective serotonin reuptake inhibitor (SSRI). The medication increases the serotonin in the synapse, making more serotonin available for the receptors (Stahl, 2020). The message is sent via the postsynaptic cell and a second messenger to change the cell. The result is a decrease in depressed mood. Note that it might take several weeks of changes to this system for the desired health outcome to occur (Stahl, 2020).

Because neurons and the messages they carry are interrelated, even medications that target only one neurotransmitter can affect other neurotransmitters and messages. These alterations can cause changes in basic drives, sleep patterns, body movements, and autonomic functions (Stahl, 2020). These are side effects of medications affecting neurotransmission. For example, several psychotropic medications have the side effect of drowsiness. This occurs because the medication affects more than one neurotransmitter and message. Side effects are often the result of unintended changes in the neurotransmitter systems.

Classifications in psychopharmacology

Medications play a role in the treatment of nearly every psychiatric condition. For the purposes of this course, psychotropic medications are classified into seven broad categories: antidepressants, anti-anxiety agents (also called anxiolytics), antipsychotics and their "partners" anticholinergics (used to reverse some side effects), mood stabilizers, sedative-hypnotics, psychostimulants, and miscellaneous medications designed to reduce or prevent alcohol or drug dependence, including nicotine dependence (Stahl, 2021)

Complementary and alternative therapies in mental health

Herbals and dietary supplements have gained interest in Western cultures as people search for natural remedies. Many people feel that natural herbal remedies are healthier and safer overall than pharmaceutical drugs. The Food and Drug Administration (FDA) considers herbal supplements, vitamins, and other dietary supplements to be food sources and, as such, only monitors information on the product's label and does not regulate their manufacturing or usage. This can result in wide variances in the amount of active ingredient that may be available in a certain product; some products have even been found to contain no active ingredients after undergoing laboratory evaluation. Some herbal supplements have been used in the treatment of mental health conditions, as these products are available over the counter in many stores. Patients may seek information available on the Internet and then choose supplements based upon their understanding. The nurse should always assess the use of herbal and other supplements and educate patients about known mechanisms of action, side effects, and possible interactions with pharmaceutical drugs. It is important to review available research regarding supplements and use this evidence when providing patient education. The role of certain natural herbs in the treatment of psychiatric disorders is discussed below.

St. John's wort (*Hypericum perforatum*) is derived from the St. John's wort plant. It is primarily used to address depression. St. John's wort is thought to affect serotonin and monoamine oxidase inhibitors in the brain, similar to antidepressants. There are numerous studies that demonstrate reports of drug-to-drug interactions in patients who used St. John's wort while taking other medications (including prescribed antidepressants), so it is important that the nurse teaches patients not to combine this supplement with other medication, as it may increase the risk for serotonin syndrome.

Valerian root (*Valeriana officinalis*) is powdered and taken in a capsule form. It is believed to work on the gamma-aminobutyric acid (GABA) system to alleviate anxiety and treat insomnia. Valerian should not be taken with other central nervous system depressants (especially anesthetics, barbiturates, and benzodiazepines) because it can potentiate their effects. Side effects include headaches, uneasiness, dizziness, and, sometimes, excitability.

Kava kava (*Piper methysticum*) is a South Pacific oceanic herb with sedative, analgesic, and mild euphoria-inducing properties. Kava kava may act on GABA in a manner similar to benzodiazepines, and it does have drug-to-drug interaction effects with those products. Side effects of kava kava can include stomach disturbances, dizziness, and a temporary yellowing of the skin. A person with liver impairment or one who is a heavy alcohol user should never use kava kava because it has been linked with hepatotoxicity (Rivers, Xing, & Narayanapillai, 2016). Banned in some European countries, kava kava is still widely available for over the counter or Internet purchase in the United States, Australia, and New Zealand (Rivers et al., 2016).

Ginseng (*Panax ginseng*) is a stimulating herb that can produce energy similar to caffeine, meant to result in improved endurance and reduced fatigue. Jitteriness and nervousness can be side effects of this supplement, as can insomnia, hypertension, restlessness, and, possibly, mania.

Ginkgo biloba (*Ginkgo biloba*) has gained popularity for its theoretical ability to improve blood flow to the brain to promote alertness, mental sharpness, and memory; to treat fatigue and stress; and to improve endurance. Ginkgo biloba has antioxidant properties, reducing free radicals in the body that cause cellular death (Tulsulkar & Shah, 2013). Ginkgo biloba can interfere with blood clotting and reduce platelet action, leading to increases in bleeding times. It may interfere with anticoagulant therapy and should not be taken by patients with circulatory problems who are taking such medications such as Coumadin, Plavix, or aspirin. Side effects of ginkgo biloba include headaches, nausea, vomiting, stomach upset, and, occasionally, skin allergies (Izzo, Hoon-Kim, Radhakrishnan, & Williamson, 2016).

Chamomile preparations are often used in Europe to facilitate digestion, ease gas, and decrease cramping (Mahady, Wicks, & Bauer, 2017). It has been shown to be safe for children and is a first line of therapy in Germany for treating sensitive skin infants and young children (Mahady et al., 2017).

To address vitamin and mineral needs, a one-a-day multivitamin supplement for adults and a chewable daily supplement for children can be helpful. Iron deficiency is associated with fatigue and oral conditions such as stomatitis. Omega-3 fatty acids (fish oil, flaxseed oil) have shown positive benefits in treating behavioral problems (Bondi et al, 2014; Raine, Portnoy, Liu, Mahoomed, & Hibbeln, 2015). The fat-soluble vitamins A, D, and K can be dangerous in high doses. B-complex vitamins are associated with energy. Given with calcium, vitamin B6 has been shown to reduce premenstrual symptoms (Masoumi, Ataollahi, & Oshvandi, 2016). L-methylfolate (Deplin), a prescription medical food, is a derivative of folic acid (a B vitamin). It is a dietary supplement that has demonstrated effectiveness in enhancing the treatment of depression and is monitored by the FDA (Shelton, Manning, Barrentine, & Tipa, 2013).

Massage is the manipulation of the body's soft tissues to promote circulation and relaxation. There are numerous types of massage techniques, varying from light touch to deep muscle work and from specific to generalized body parts. Swedish massage is meant to provide relaxation and increase circulation; Shiatsu massage, influenced by Chinese medicine, is used by a specialized practitioner who applies pressure to acupoints on the body with the intention of increasing the life flow (or Japanese ki; Halter, 2018).

Reflexology, also called *zone therapy*, is the application of massage or pressure to the hands and feet to alleviate distress in different parts of the body. The theory of reflexology is that all of the body is represented in areas in the hands and feet, and thus stimulating these trigger points can eliminate distress in the related body system(s) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4624523/).

According to traditional Chinese medical theory, acupuncture points are situated along meridians (channels) in the body that align with a vital energy flow, the *Qi* (Halter, 2018). Illness or distress interrupts the Qi. Acupuncturists insert tiny filiform needles along the meridians to stimulate and readjust the energy flow. Practitioners diagnose which systems in the body are affected based on inspection, auscultation, olfactory senses, palpation, and taking a limited history of symptoms. Side effects to the treatment are generally mild and may include slight headaches, nausea, or pain in certain areas. In the Western hemisphere, a common use of acupuncture is for the treatment of pain (Halter, 2018 (https://www.sciencedirect.com/science/article/pii/S2213422021000883?via%3Dihub).

Hypnosis is a technique that induces a deep relaxation and calm, trance-like state of mind. The patient's focus of awareness becomes so restricted that external noise and distractions are no

longer present in the conscious mind. Hypnotherapy is practiced by highly trained clinicians, often psychologists, to achieve certain therapeutic goals with the patient, such as recovering memories lost through the defense mechanism of repression, learning to be less anxious when faced with anxiety-provoking situations, or reducing or eliminating undesirable behavior such as smoking. The patient undergoing hypnotherapy must be relaxed and receptive to the procedure (https://positivepsychology.com/hypnotherapy/).

Psychiatric nurses should familiarize themselves with the various modalities of psychotherapy, the medications used in the treatment of psychiatric illness, as well as the complementary and alternative therapies and the various somatic therapies used in the treatment of psychiatric disorders. Psychiatric nurses provide psychoeducational services to patients and their families and should have a thorough understanding of the treatment modalities commonly used in psychiatric practice.

Self-Assessment Quiz Question #7

Which complementary alternative medicine interferes with anticoagulants?

a. Chamomile.
b. Ginseng.
c. Ginkgo biloba.
d. St. John's wort.

Self-Assessment Quiz Question #8

Which complementary alternative medicine should be avoided in patients who report heavy alcohol use?

a. St. John's Wort.
b. Ginseng.
c. Valerian root.
d. Kava kava.

OTHER THERAPIES IN MENTAL HEALTH

Electroconvulsive therapy

Mental health professionals once used ECT, introduced in the 1930s, to treat a broad range of psychiatric disturbances (George et al., 2020). With strong advances and refinements in the field, professionals may still use ECT to treat certain conditions such as severe depression (major depression), mania, or psychosis (George, et. al, 2020). To perform ECT, the patient is given a short-acting sedative, followed by a muscle relaxant. The muscle relaxant prevents tonic-clonic jerking of the body caused by seizure activity that, historically, was the cause of physical injuries to the patient. After the patient is anesthetized, electrodes are placed on the sides of their head and an electrical stimulus that is sufficient to trigger a seizure is given. Ideally, the seizure activity lasts about 15 seconds (Townsend, 2014). Breathing is supported during the procedure by nurse anesthetists or anesthesiologists. The ECT session is repeated two to three times a week for 3 to 4 weeks and is often done on an outpatient basis (Townsend, 2019).

Providers usually use medications and therapy before deciding to use ECT. ECT has an effectiveness rate of approximately 60% to 70% in the treatment of depression (George, et. al, 2020). There are few contraindications to ECT; however, caution should be used in pregnancy, patients with cardiac conditions, or patients with intracranial pressure because of disease (Townsend, 2019). Side effects of ECT include memory loss and some confusion in recalling events right before and after the procedure. Some people complain of long-term memory and cognitive problems. Also, complications related to the use of anesthetics (allergic reaction, respiratory suppression) can occur.

Transcranial magnetic stimulation

Transcranial magnetic stimulation (TMS) is a noninvasive treatment for depression. The patient is exposed to electrical energy that is passed through a coil of wires to produce a powerful magnetic field (George, et. al, 2020). Magnetic waves pass through the brain and skull painlessly, while the patient remains awake for the procedure. It is most effective when administered for 40 minutes daily for 4 to 6 weeks. It is thought to work by stimulating nerve cells to produce the neurotransmitters that relieve depression. Side effects of TMS are few, with patients reporting only mild headaches. TMS cannot be used if the patient has implanted or permanent metal in the skull or brain (George, et. al, 2020).

Vagus nerve stimulation

Vagus nerve stimulation (VNS) is an adjunctive, long-term, invasive therapy for adult patients with serious and persistent depression (George, et. al, 2020). Most of these individuals have shown no improvement in condition after trials of four or more antidepressants before attempting VNS therapy. A VNS implant is a small, battery-powered device, similar to a cardiac pacemaker, that is surgically implanted subcutaneously under the skin of the upper left or right chest. Internally, a wire runs from the device to the vagus nerve, which then carries electrical impulses to the brain. These impulses are emitted every few minutes. The device is thought to work by electrically stimulating the production of neurotransmitters that are associated with depression treatment. The side effects of VNS include a tickle in the throat (may trigger a cough reflex), mild hoarseness or other voice changes, and, rarely, difficulty swallowing, shortness of breath, neck pain, and a prickling sensation in the skin.

Case study 1

Mrs. Jones was admitted as an involuntary patient to the psychiatric unit. She was brought to the emergency department by her daughter, who reported her mother was showing "new and bizarre" behaviors. She has a history of schizophrenia, which has been well controlled until this episode.

The psychiatric nurse begins the mental status exam of Mrs. Jones. The nurse notes that she is wearing a short dress that is on backwards. She appears disheveled and unkempt; she has not eaten any of her breakfast. Further, the nurse observes that Mrs. Jones has taken the blankets off the bed and laid them out on the floor. She has also taken the toilet paper and unrolled it into a pile on the floor.

When the nurse introduces herself, Mrs. Jones is at the window talking in nonsensical words. She is wringing her hands and appears to be fixated on something outside. She does not acknowledge the nurse.

Later, she turns around and exclaims, "Sally, I am so glad you are here. Tea is almost ready. Flubrubaroo?" She moves to the pile of blankets and stands in the middle of them, smiling at the nurse.

The nurse smiles and begins to talk to Mrs. Jones. The nurse explains again that she is a psychiatric nurse and is there to care for her. She states, "Oh no, dear, have you tokenitnd?"

The nurse notes that Mrs. Jones' affect is flat as she stares out at the window but animated when speaking in nonsensical words. The nurse asks her name. Suddenly, the patient turns to the nurse and starts talking very quickly, saying, "I know it is late. What was the dog's name again? I must go to the store. More milk."

Questions

1. Which components of the mental status examination can the nurse document from this interaction with Mrs. Jones?
2. How might you describe Mrs. Jones' affect?
3. How would you summarize the nurse's observation and evaluation of Mrs. Jones' thought processes?
4. What other health status information is helpful for the nurse to assess?

Responses

1. The psychiatric nurse can document Mrs. J's appearance, her behavior, and her affect, but not her mood. Documentation can also include thought processes and thought content. The psychiatric nurse is unable to assess Mrs. J's memory, cognition, insight, motivation, and judgment as well as her safety.
2. In addition to being flat and animated, Mrs. J's affect may also be described as anxious. Because her affect seems to be fluctuating, there may be an incongruence between her affect and behavior.
3. Word salad is a common finding and learners should be familiar with the term. Mrs. J's nonsensical and disorganized speech gives some indication of her thought processes. Her thought process appears to be confused. She exhibits word salad and her thought processes are disjointed and incoherent. Mrs. J's thought content is not clear as she does not respond coherently to the questions being asked.
4. It would be helpful for the psychiatric nurse to obtain information from the patient's daughter. What has Mrs. J been exhibiting at home? What is Mrs. J's baseline level of functioning? Were there any past episodes of self-harm or dangerous behavior? Over what period has this change in behavior occurred? Were there any triggers?

Case study 2

Donald is a 45-year-old male patient employed as a financial manager by a large bank. Because of economic downturns, there have not been as many opportunities to gain new business, which has led to fierce competition between financial managers.

Donald presents to his primary care provider's office reporting recent episodes of shortness of breath, sweating, anxiety, and the strong feeling that he is about to die. These symptoms started 3 months ago, occurring once or twice a week. Within the past few weeks, Donald reports he has experienced symptoms daily and he has begun to fear leaving his home because he is afraid that he will have another attack. His attendance at work has suffered and he reports that his supervisor told him that he might lose his job as a result. This has caused problems between him and his wife and she has started talking about leaving him to move back in with her parents.

An electrocardiogram, stress test, and laboratory testing are performed, all of which show normal results. Donald is prescribed alprazolam (Xanax) by his primary care provider and referred to the local mental health center for treatment. Once there, he meets with a therapist for a comprehensive assessment. Donald is diagnosed with panic disorder and agoraphobia. He is referred to the psychiatric nurse practitioner for a medication evaluation and treatment. The nurse practitioner recommends that Donald start taking sertraline (Zoloft), 50 mg daily, and that he uses the Xanax only as needed to avoid tolerance and dependency.

Questions

1. What are other therapies that are most likely to be beneficial for Donald?
2. Are there any ancillary services that could also be helpful to Donald?
3. Which recommendations regarding his relationship status with his wife could the nurse practitioner discuss with Donald?

Responses

1. Panic attacks and panic disorder are treatable and respond well to medications and therapy. Cognitive-behavioral therapy is indicated to help this patient learn to identify anxiety-provoking triggers and reframe how he thinks about these events. Relaxation training, such as guided imagery and mindfulness, could be helpful in teaching Donald a means of reducing the anxiety once it occurs.
2. Another recommendation for Donald would be to include regular daily exercise in his routine (aerobic or weightlifting) because exercise can have a significantly positive effect on panic disorder treatment.
3. Donald may wish to consider the need for marital therapy sessions to work on improving communication with his wife. If she is willing to participate in Donald's treatment plan, they may also want to join a National Alliance on Mental Illness (NAMI) support group to learn more about psychiatric disorders and the rights of individuals who have such disorders. Finally, mental and behavioral health problems are considered medical problems and are protected under the federal Family and Medical Leave Act of 1993. If Donald's symptoms increase and become more debilitating, the psychiatric nurse practitioner treating Donald can provide him with a work statement and absence excuse that should help to protect his employment status and prevent him from losing his job while he is receiving treatment.

Case study 3

Mr. Fisher is a young adult male patient who has been newly diagnosed with panic attacks. The psychiatric mental-health nurse working in the outpatient clinic meets with Mr. Fisher, who was recently prescribed benzodiazepine by the psychiatrist for his panic attacks. Mr. Fisher asks the nurse what it means to have "a chemical imbalance" in the brain. He also asks how the new medication will "fix" his panic attacks.

Questions

1. How should the nurse explain "a chemical imbalance" in the brain to Mr. Fisher?
2. How should the nurse describe how benzodiazepine medications work?

Responses

1. The psychiatric-mental health nurse should explain to Mr. Fisher that neurotransmitters are chemicals in the brain that form messenger systems between neurons to help the brain and body regulate functions (e.g., thinking, feeling) and react or behave. The nurse also explains that there are excitatory and inhibitory amino acids that assist in regulating these brain functions. The nurse describes that a person's emotions and behaviors are the result of the functioning of these chemicals carrying messages between the neurons and amino acids. When there is an imbalance among neurotransmitters, the messenger system receives too many or too few messages, impairing regulation.
2. The nurse should explain that, in a person with panic disorder, the function of GABA may be altered. Normally, GABA slows down other chemicals that are more excitatory. If GABA is not working correctly or at the correct level, there is no way to slow down the other chemicals. The result may be panic attacks. There are anti-anxiety medications, such as benzodiazepines, that aim to increase levels of GABA to help slow down brain activity; they decrease anxiety by changing how the chemicals in the brain communicate and work.

Healthcare Considerations

1. Therapeutic use of self is one of the foundations of mental health nursing.
2. An understanding of the mental health exam is fundamental to the diagnosis and treatment of mental illness.

Conclusion

The brain is an amazing organ that not only monitors changes in the external world but also regulates internal body functions. The brain initiates basic drives and controls contractions of muscles, internal organs, sleep cycles, moods, and emotions. Knowledge of how the brain works with regard to neurotransmission is an important aspect of understanding psychiatric-mental health disorders and the medications used to alleviate patient symptoms. Neurotransmitters carry specific messages from neuron to neuron to produce emotions and behaviors. Psychiatric-mental health medications work by altering these messenger systems. The neurotransmitters involved in mood and behavior include serotonin, norepinephrine, and dopamine. Through epidemiological research, healthcare providers can learn more about the prevalence of psychiatric and mental health disorders, as well as ways to identify persons who are at risk. This information becomes an important part of the nurse's assessment and identification of patients with psychiatric disorders. Recognizing an individual's behaviors and making statements can add to the assessment data and provide insight into the patient's current mental health state.

Assessing the patient, performing mental status assessments, identifying priority problems, developing goals and objectives, and developing evidence-based plans of care comprise the core steps of the systematic approach to caring for patients with psychiatric disorders. After these processes have taken place, the provision of relevant and appropriate nursing interventions follows. The therapeutic relationship is established during initial patient encounters, during the assessment and implementation of interventions during the nursing care planning process.

Psychiatric nurses who use therapeutic communication will be able to conduct effective, comprehensive mental status examinations that provide the information necessary to develop a comprehensive mental healthcare plan, regardless of practice setting.

References

- American Nurses Association. (2014). Psychiatric mental health nursing: Scope and standards of practice (2nd ed.). Silver Spring, MD: Author.
- American Nurses Association. (2016). Code of ethics for nurses with interpretative statements. Retrieved from http://www.nursingworld.org/MainMenuCategories/Ethics Standards/CodeofEthicsforNurses/Code-of-Ethics-For-Nurses.html
- American Psychiatric Association. (n.d.). DSM history. Retrieved from https://www.psychiatry.org/psychiatrists/practice/dsm/history-of-the-dsm
- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: Author.
- American Psychoanalytic Association. Psychoanalytic Theory & Approaches (n.d.) Retrieved April 07, 2022 from https://apsa.org/content/psychoanalytic-theory-approaches
- Beck, A. T. (1967). Depression: Clinical, experimental, and theoretical aspects. Philadelphia, PA: University of Pennsylvania Press.
- Black, D. W. & Grant, J. E. (2014). DSM-5 guidebook: The essential companion to the Diagnostic and Statistical Manual of Mental Disorders. Arlington, VA: American Psychiatric Publishing.
- Bondi, C. O., Taha, A. Y., Tock, J. L., Totah, N. K., Cheon, Y., Torres, G. E., ... Moghaddam, B. (2014). Adolescent behavior and dopamine availability are uniquely sensitive to dietary omega-3 fatty acid deficiency. Biological Psychiatry, 75(1), 38-46.
- Boyd, M. (2018). Psychiatric nursing: Contemporary practice (5th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Centers for Disease Control. (n.d.). *Health Insurance Portability and Accountability Act*
- *of 1996 (HIPAA)*. Retrieved January 16, 2022, from https://www.cdc.gov/phlp/publications/topic/hipaa.html
- Centers for Disease Control and Prevention. (2015). Hispanic health. Retrieved from https://www.cdc.gov/vitalsigns/hispanic-health/index.html
- Centers for Medicare & Medicaid Services. (n.d.). The center for consumer information & insurance oversight: The Mental Health Parity and Addiction Equity Act
- (MHPAEA). Retrieved from https://www.cms.gov/cciio/programs-and-initiatives/other-insurance-protections/mhpaea_factsheet.html
- Chen C, Zhan J, Wen H, Wei X, Ding L, Tao C, Li C, Zhang P, Tang Y, Zeng J, Lu L. Current state of research about acupuncture for the treatment of COVID-19: A scoping review. Integr Med Res. 2021;10(Suppl):100801. doi: 10.1016/j.imr.2021.100801. Epub 2021 Oct 14. PMID: 34664024; PMCID: PMC8516141. Retrieved April 6, 2022.
- Children's Bureau, Child Welfare Information Gateway. (2016). Mandatory reporters of child abuse and neglect. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau. Retrieved from https://www.childwelfare.gov/pubPDFs/manda.pdf
- Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE). (n.d.). Retrieved from http://www.coamfte.org/iMIS15/COAMFTE/Accreditation/Value%20of%20Accreditation.aspx
- Corey, M. S., Corey, G., & Corey, C. (2013). Groups: Process and practice (9th ed.). Boston, MA: Cengage Learning.
- Corsini, R. J. & Wedding, D. (Eds.). (2018). *Current Psychotherapies* (11th ed.). Cengage Learning.
- Diathesis Stress Theory Explained. (n.d.). HealthResearchFunding.org. Retrieved January 16, 2022, from https://healthresearchfunding.org/diathesis-stress-theory-explained/
- Duke, M. R., Moore, R. S., & Ames, G. M. (2011). PTSD treatment-seeking among rural Latino combat veterans: A review of the literature. Journal of Rural Social Sciences, 26(3), 157-180.
- Ebert, A. (n.d.). *Emil Kraepelin: A pioneer of scientific understanding of psychiatry and psychopharmacology*. NCBI. Retrieved January 16, 2022, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2927892/
- Embong, N. H., Soh, Y. C., Ming, L. C., & Wong, T. W. (2015). Revisiting reflexology: Concept, evidence, current practice, and practitioner training. *Journal of traditional and complementary medicine*, *5*(4), 197–206. Retrieved from April 6, 2022, from https://doi.org/10.1016/j.jtcme.2015.08.008
- Emergency Hospitalization, 51 Ohio Rev. Code ch. 5122.10. (2014). Retrieved from http://codes.ohio.gov/orc/5122.10
- Forrester, D. A. (2016). Nursing's greatest leaders: A history of activism. New York, NY: Springer.
- Foucha v. Louisiana (90-5844), 504 U.S. 71. (1992). Supreme Court. Retrieved from https://www.law.cornell.edu/supct/html/90-5844.ZO.html
- Friedman, M. M., Bowden, V. R., & Jones, E. (2003). *Family Nursing: Research, Theory & Practice* (5th ed.). Prentice Hall.
- Fromm, E. (2013). Sigmund Freud's mission: An analysis of his personality and influence. New York, NY: Open Road Media.
- George, M., Taylor, J, Short, E., Snipes, J., Pelic, C., & Fryml, L. In Gabbard, G. O. (Ed.). (2014). *Gabbard's Treatments of Psychiatric Disorders* (5th ed.). American Psychiatric Publishing, a division of American Psychiatric Association.
- Griswold v. Connecticut. (1965). Legal Information Institute. Cornell Law School. (https://www.law.cornell.edu/wex/griswold_v_connecticut_(1965)).
- Halter, M. J. (2018). Varcarolis' foundations of psychiatric mental health nursing: A clinical approach (8th ed.). St. Louis, MO: Elsevier.
- Headlee, R. & Corey, B. W. (1948). Psychiatry in Nursing. New York, NY: Rinehart; original from the University of Michigan.
- Henwood, B. F., Derejko, K. S., Couture, J., & Padgett, D. K. (2015). Maslow and mental health recovery: a comparative study of homeless programs for adults with serious mental illness. Administration and policy in mental health, 42(2), 220–228. https://doi.org/10.1007/s10488-014-0542-8
- Herne, M. A., Bartholomew, M. L., & Weahkee, R. (2014). Suicide mortality among American
- Indians and Alaska Natives, 1999-2009. American Journal of Public Health, 104 (Suppl. 3), S336-S342. doi:10.2105/AJPH.2014.301929
- Institute of Medicine (now the Health and Medicine Division of the National Academies) Committee on Crossing the Quality Chasm. (2006). Improving the quality of health care for mental and substance-use conditions. In Quality Chasm. Retrieved from http://www.ncbi.nlm.nih.gov/books/NBK19830/
- Izzo, A. A., Hoon-Kim, S., Radhakrishnan, R., & Williamson, E. M. (2016). A critical approach to evaluating clinical efficacy, adverse events and drug interactions of herbal remedies. Phytotherapy Research, 30(5), 691–700.
- Jahnke, R., Larkey, L., Rogers, C., Etnier, J., & Lin, F. (2010). A comprehensive review of health benefits of qigong and tai chi. *American journal of health promotion: AJHP*, *24*(6), e1–e25. Retrieved April 6, 2022, from https://doi.org/10.4278/ajhp.081013-LIT-248
- Jones & Bartlett Learning. (n.d.). The Nurse-Patient Relationship. Retrieved from http://samples.jbpub.com/9781449691776/9781449691776_CH05_Pass2.pdf
- Keltner, N. L. (2018). Historical issues. In N. L. Keltner & D. Steele (Eds.), Psychiatric nursing (7th ed., pp. 9-18). St. Louis, MO: Mosby Elsevier. (2015). Anxiety-related, obsessive-compulsive, trauma and stressor-related, somatic, and dissociative disorders. In N. L. Keltner & D. Steele (Eds.), Psychiatric nursing (7th ed., pp. 308-330). St. Louis, MO: Mosby Elsevier.
- Keltner, N. L. & Steele, D. (2014). Psychiatric nursing (7th ed.). St. Louis, MO: Mosby Elsevier.
- Kibria, A. A. & Metcalfe, N. H. (2016). A biography of William Tuke (1732–1822): Founder of the modern mental asylum. Journal of Medical Biography, 24(3), 384-388. doi:10.1177/0967772014533059
- Lasagna, L. (1982). The Boston State Hospital Case (*Rogers* v. *Okin*): A Legal, Ethical, and Medical Morass. Perspectives in Biology and Medicine Volume 25, Number 3, Spring 1982, pp. 382-403, Johns Hopkins University Press, 10.1353/pbm.1982.0031. Retrieved April 8, 2022 from https://muse.jhu.edu/article/404046
- Mahady, G. B., Wicks, S. M., & Bauer, R. (2017). Use of botanicals in children and adults. In S. W. Ekvall & V. K. Ekvall (Eds.), Pediatric and adult nutrition in chronic diseases, developmental disabilities, and hereditary metabolic disorders: Prevention, assessment, and treatment, p. 191.
- Masoumi, S. Z., Ataollahi, M., & Oshvandi, K. (2016). Effect of combined use of calcium and vitamin B6 on premenstrual syndrome symptoms: A randomized clinical trial. Journal of Caring Sciences, 5(1), 67.
- McKay, D., Sookman, D., Neziroglu, F., Wilhelm, S., Stein, D. J., Kyrios, M., ... Veale, D. (2015). Efficacy of cognitive-behavioral therapy for obsessive–compulsive disorder. Psychiatry Research, 225(3), 236–246.
- Meier, E., et al., Plaintiffs and Appellants, v. ROSS GENERAL HOSPITAL et al., Defendants and Respondents. S.F. 22607. Decided: October 04, 1968. Retrieved April 8, 2022, from https://caselaw.findlaw.com/ca-supreme-court/1822578.html
- Rennie v. Klein. Fed Report (1983). 1983 Oct 13; 720:266-77.U.S. Court of Appeals, Third Circuit PMID: 11648483. Retrieved April 8, 2022, from https://pubmed.ncbi.nlm.nih.gov/11648483/
- Riley, J. B. (2015). Communication in nursing. St. Louis, MO: Elsevier Health Sciences.
- Rivers, Z., Xing, C., & Narayanapillai, S. (2016). Kava as a pharmacotherapy of anxiety disorders: Promises and concerns. Medicinal Chemistry, 6(2), 81-87.
- Rouse v. Cameron. (1966) 125 U.S.App. D.C. 366, 373 F.2d 451 (https://casetext.com/case/rouse-v-cameron)
- Rüsch, N., Zlati, A., Black, G., & Thornicroft, G. (2014). Does the stigma of mental illness contribute to suicidality? The British Journal of Psychiatry, 205(4), 257-259.
- Sadock, B. J., Sadock, V. A., & Ruiz, P. (2015). Kaplan and Sadock's synopsis of psychiatry: Behavioral sciences/clinical psychiatry (11th ed.). Philadelphia, PA: Wolters Kluwer.
- Sarkhel, S., Singh, O. P., & Arora, M. (2020). Clinical Practice Guidelines for Psychoeducation in Psychiatric Disorders: General Principles of Psychoeducation. *Indian journal of psychiatry*, *62*(Suppl 2), S319–S323. Retrieved April 06, 2022, from https://doi.org/10.4103/psychiatry.IndianJPsychiatry_780_19
- S.F. No. 23042. Supreme Court of California. July 1, 1976. VITALY TARASOFF et al., Plaintiffs and Appellants, v. THE REGENTS OF THE UNIVERSITY OF CALIFORNIA et al., Defendants and Respondents
- Sharma, N. & Gupta, V. (2022). Therapeutic communication. Stat Pearls. Retrieved from NCBI, April 8, 2022, from https://www.ncbi.nlm.nih.gov/books/NBK567775/
- Shelton, R. C., Manning, J. S., Barrentine, L. W., & Tipa, E. V. (2013). Assessing effects of l-methylfolate in depression management: results of a real-world patient experience trial. The Primary Care Companion for CNS Disorders, 15(4).
- Stahl, S. M. (2020). Stahl's essential psychopharmacology: Neuroscientific basis and practical applications (4th ed.). Cambridge, United Kingdom: Cambridge University Press.
- Suma, P., Kuckel, D., & Huecker, M. (2021). Cognitive Behavior Therapy. *Stat Pearls* 8. Retrieved 4/8/22 from https://www.ncbi.nlm.nih.gov/books/NBK470241/
- Townsend, M. C. (2019). Psychiatric mental health nursing: Concepts of care in evidence-based practice (8th ed.). Philadelphia, PA: F. A. Davis.
- Treatment Advocacy Center. (2014). Mental health commitment laws: A survey of the states. Retrieved from http://www.treatmentadvocacycenter.org/storage/documents/2014-state-survey-abridged.pdf
- Tuckman, B. W. & Jensen, M. A. C. (1977). Stages of small-group development revisited. Group & Organization Management, 2(4), 419-427.

- U.S. Census Bureau. (2016a, November). Facts for features: American Indian and Alaska Native heritage month: November 2016. Retrieved from https://www.census.gov/newsroom/facts-for-features/2016/cb16-ff22.html
- U.S. Census Bureau. (2016b, October). FFF: Hispanic heritage month 2016. Retrieved from https://www.census.gov/newsroom/facts-for-features/2016/cb16-ff16.html
- U.S. Census Bureau. (2016c). Table: Black or African American alone, percent, July 1, 2016 (V2016). Retrieved from https://www.census.gov/quickfacts/fact/table/US/RHI225216
- US Census Bureau. (2021). *US Census Bureau QuickFacts: United States*. Census Bureau. Retrieved January 16, 2022, from https://www.census.gov/quickfacts/fact/table/US/RHI225219
- US Constitution. (1868). 14th Amendment. https://constitution.congress.gov/constitution/amendment-14/
- U.S. Department of Health and Human Services. (1996). The Health Insurance Portability and Accountability Act. Retrieved from https://aspe.hhs.gov/report/health-insurance-portability-and-accountability-act-1996
- U.S. Department of Health and Human Services. (2017a). Health information privacy. Retrieved from https://www.hhs.gov/hipaa/for-professionals/faq/2098/if-doctor-believes-patient-might-hurt-himself-or-herself-or-someone-else-it-duty-provider.html
- U.S. Department of Health and Human Services. (2017b). Information related to mental and behavioral health. Retrieved from https://www.hhs.gov/hipaa/for-professionals/special-topics/mental-health/index.html
- U.S. Department of Labor (1993). Family medical leave act of 1993. Retrieved January 2, 2022, from https://www.dol.gov/agencies/whd/laws-and-regulations/laws/fmla#
- Volpi-Abadie, J., Kaye, A. M., & Kaye, A. D. (2013). Serotonin syndrome. *The Ochsner journal*, *13*(4), 533–540. retrieved Apr 8, 2022 from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3865832/
- Wyatt v. Stickney 325 F. Supp 781(M.D.Ala.1971), 334 F. Supp. 1341 (M.D.Ala 1971), 344 F. Supp. 373 (M.D. Ala. 1972), sub nom Wyatt v. Aderholt, 503 F. 2d 1305 (5th Cir. 1974). Retrieved April 8, 2022, from https://mentalillnesspolicy.org/legal/wyatt-stickney-right-treatment.html
- Yalom, I. D. & Leszcz, M. (2014). The theory and practice of group psychotherapy (5th ed.). New York, NY: Basic Books.

BASIC PSYCHIATRIC CONCEPTS

Self-Assessment Answers and Rationales

1. The correct answer is B.
Rationale: Aaron Beck developed cognitive behavioral therapy after working with depressed patients. Cognitive behavioral therapy is based on cognitive psychology and behavioral therapy.

2. The correct answer is A.
Rationale: The unit policy regarding voluntary patient participation in group therapy preserves the ethical principle of autonomy. The principle of autonomy presumes that individuals are capable of making independent decisions for themselves and that healthcare workers must respect these decisions. Beneficence refers to one's duty to benefit or promote the good of others. Justice reflects the nurse's duty to treat all patients equally. Veracity refers to the duty to be truthful (Boyd, 2018).

3. The correct answer is A.
Rationale: Defense mechanisms are behaviors that an individual uses to deal with stressors. Defense mechanisms can be beneficial and protective for the patient or they can be counterproductive and maladaptive.

4. The correct answer is C.
Rationale: The nurse assumes responsibility for the milieu. The nurse is responsible for the overall environment as well as assessment and medication administration. The therapist is primarily responsible for group and individual therapy in a traditional care model. Psychodrama uses role-play to express feelings. The occupational therapy assists the patient to develop independence in life skills. (Boyd, 2018)

5. The correct answer is B.
Rationale: Many community support groups exist to help individuals who are experiencing specific mental health problems. Groups exist for gambling addiction, rape and sexual abuse support, bipolar disorder, depression, grief and bereavement, suicide, attention deficit disorder, Tourette's disorder, substance use disorders, and many more.

6. The correct answer is B.
Rationale: Dopamine is a neurotransmitter associated with psychosis and influences several areas of the brain.

7. The correct answer is C.
Rationale: Ginkgo biloba can interfere with blood clotting and reduce platelet action, leading to increases in bleeding times. It may interfere with anticoagulant therapy and should not be taken by patients with circulatory problems who are taking such medications such as Coumadin, Plavix, or aspirin.

8. The correct answer is D.
Rationale: :A person with liver impairment or one who is a heavy alcohol user should never use kava kava because it has been linked with hepatotoxicity (Rivers, Xing, & Narayanapillai, 2016)

Crisis Resource Management for Healthcare Professionals

3 Contact Hours

Release Date: January 31, 2022 **Expiration Date:** January 31, 2025

Faculty

Pamela Corey MSN, EdD, RN, CHSE, has been a registered nurse since 1984 with a clinical background in pediatrics, pediatric critical care, and neonatal critical care. She has a master's in nursing education and a Doctorate in Education. Her specialty area includes simulation-based education, and she is certified as a Healthcare Simulation Educator. Her dissertation was on adult and pediatric team training and crisis resource management. Pamela developed and implemented code team training at a major teaching hospital utilizing CRM techniques to prepare staff for safe and efficient responses to emergent situations within the hospital setting.

Pamela Corey has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Peer reviewer:
Scott Tilton MSN, AGACNP-BC, CCRN, is a board-certified adult-gerontology acute care nurse practitioner with a clinical background in emergency medical services, trauma critical care, neurocritical care, and rotor-wing transport. He works as an advanced practice provider in a cardiovascular intensive care unit that specializes in the resuscitation of patients recovering from cardiac surgery and those requiring mechanical support or extracorporeal membrane oxygenation (ECMO). As he pursues his Doctorate in Nursing, his clinical interests are point of care ultrasound training and standardizing the response to ECMO clinical emergencies within the intensive care unit.

Scott Tilton has disclosed that he has no significant financial or other conflicts of interest pertaining to this course.

Peer reviewer:
Brad Gillespie, PharmD, is trained as a clinical pharmacist, Dr. Brad Gillespie has practiced in an industrial setting for the past 25+ years. His initial role was as a Clinical Pharmacology and Biopharmaceutics reviewer at FDA, followed by 20 years of leading Early Development programs in the pharma/biotech/nutritional industries. In addition to his industrial focus, he remains a registered pharmacist and enjoys mentoring drug development scientists and health professionals, leading workshops, and developing continuing education programs for pharmacy, nursing, and other medical professionals.

Brad Gillespie has disclosed that he has no significant financial or other conflicts of interest pertaining to this course.

Course overview

Understanding Crisis Resource Management (CRM) and utilization of the concepts within team emergent responses can improve patient outcomes. The course will outline CRM concepts and demonstrate the application within emergent situations in healthcare. CRM concepts discussed will include leadership and followership, role identity and clarity; effective communication strategies; situational awareness; resource allocation; and dynamic decision making. Physicians, advanced practice providers, nurses, respiratory therapists, pharmacists, and other health team members should understand CRM to improve their performance in emergent team responses and ultimately improve patient outcomes. CRM framework is also applicable in medical and environmental emergent situations where teams work together to ensure patient safety.

Learning objectives

After completing this course, the learner will be able to:

- Examine the history of crisis resource management (CRM) and its application in healthcare.
- Examine the major realms of the CRM framework and how they are incorporated in team responses.
- Compare the communication techniques used in CRM.
- Examine resource allocation during an emergent event.
- Apply the process of dynamic decision making in an emergent situation.
- Demonstrate the importance of role clarity in team management through case study analysis.

How to receive credit

- Read the entire course online or in print which requires a 3-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal information and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion.

CE Broker reporting

Colibri Healthcare, LLC, provider # 50-4007, reports course completion results within 1 business day to CE Broker. If you are licensed in Arkansas, District of Columbia, Florida, Georgia, Kentucky, Michigan, Mississippi, New Mexico, North Dakota, South Carolina, or West Virginia, your successful completion results will be automatically reported for you.

Accreditations and approvals

Colibri Healthcare, LLC is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

Individual state nursing approvals

Colibri Healthcare, LLC is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation. In addition to states that accept courses offered by ANCC accredited Providers, Colibri Healthcare, LLC is an approved Provider of continuing education in nursing by: Alabama Board of Nursing, Provider #ABNP1418 (valid through February 5, 2025); Arkansas State Board of Nursing, Provider #50-4007; California Board of Registered Nursing, Provider #CEP17480 (valid through January 31, 2024); California Board of Vocational Nursing and Psychiatric Technicians (LVN Provider # V15058, PT Provider #V15020; valid through December 31, 2023); District of Columbia Board of Nursing, Provider #50-4007; Florida Board of Nursing, Provider #50-4007; Georgia Board of Nursing, Provider #50-4007; Kentucky Board of Nursing, Provider #7-0076 (valid through December 31, 2023; CE Broker provider #50-4007). Michigan Board of Nursing, Provider #50-4007; Mississippi Board of Nursing, Provider #50-4007; New Mexico Board of Nursing, Provider #50-4007; North Dakota Board of Nursing, Provider #50-4007; South Carolina Board of Nursing, Provider #50-4007; and West Virginia Board of Registered Nurses, Provider #50-4007. This CE program satisfies the Massachusetts States Board's regulatory requirements as defined in 244 CMR5.00: Continuing Education.

Activity director

June D. Thompson, DrPH, MSN, RN, FAEN, Lead Nurse Planner

Disclosures

Resolution of conflict of interest
In accordance with the ANCC Standards for Commercial Support for continuing education, Colibri Healthcare, LLC implemented mechanisms prior to the planning and implementation of the continuing education activity, to identify and resolve conflicts of interest for all individuals in a position to control content of the course activity.

Sponsorship/commercial support and non-endorsement
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Disclaimer

The information provided in this activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient's medical condition.

Course verification

All individuals involved have disclosed that they have no significant financial or other conflicts of interest pertaining to this course. Likewise, and in compliance with California Assembly Bill No. 241, every reasonable effort has been made to ensure that the content in this course is balanced and unbiased.

INTRODUCTION

The ability to respond to an emergency in a timely and efficient manner is essential for all healthcare professionals regardless of their practice setting. However, many may lack formal training and education in best practices for dealing with various emergencies that can occur in professional settings. Patient outcomes improve when healthcare providers work efficiently as a team.

Crisis resource management (CRM) is a set of behaviors derived from evidence-based practice that aims to promote safety, improve teamwork behaviors, and decrease the incidence of adverse events during an emergency response (Alsabri et al., 2020; Fanning et al., 2013). Healthcare providers in all areas of practice can be responders to critical events involving medical or environmental emergencies and benefit from learning about CRM concepts and applying them to their practice.

The purpose of this course is to provide evidence-based knowledge on CRM principles and how healthcare providers can utilize these concepts within their practice setting and effectively respond to an emergent situation as part of a team. Cardiac arrest, anaphylaxis, fire, weather emergencies, and mass casualty disasters are situations where CRM knowledge can improve patient safety and outcomes. This course is designed for nurses, Licensed Independent Providers (LIP) such as medical doctors, physician assistants, and nurse practitioners, pharmacists, respiratory therapists, and support staff practicing at all levels and in all practice settings. Those who incorporate CRM principles during an emergency will understand role identification; the purpose of clear, concise communication; situational awareness; and dynamic decision-making for an effective, coordinated response.

History of crisis resource management

There are many industries where staff preparedness for an infrequent event can prevent adverse events. The aviation industry was the first to use the concept of "crew resource management" to train and prepare all airline employees for an aviation disaster. Aviation research from the '70s and '80s demonstrated that many adverse events were related to human error in communication, awareness of the situation, and delegation and workload management (Helmreich & Fousbee, 1993). This research led to specific pilot and airline staff training that incorporated simulations of rare events requiring the use of technical skills and cockpit/crew resource management behaviors. Each session was followed by a debriefing that reviewed the performance of the individual and the team and reinforced the concepts.

Healthcare is another area where a lack of knowledge in responding to rare events can cause adverse outcomes. While the aviation industry was exploring human factors, the healthcare industry, specifically anesthesiologists, also explored behaviors and performance in high-acuity, low-volume events. High acuity – low volume events are those emergent critical situations that occur infrequently, but staff need to respond to competently. Through analysis and debriefings of actual patient events, it

was discovered that even experienced physicians lacked the optimal knowledge and skills necessary for effectively managing a crisis (Gaba et al., 2001). As this topic gained more attention through continued analysis of unexpected adverse events that negatively impacted patient outcomes, it was revealed that all teams who responded in crisis situations needed to be educated and trained in the behaviors that lead to improved and effective responses. Although crisis resource management (CRM) in healthcare first started in complex areas, such as operating rooms and emergency departments, these skills apply to all healthcare team members. For example, educational programs that focus on CRM and team interactions have been used in obstetrics training for emergent delivery and maternal cardiac arrest (Bracco et al., 2018). CRM training has improved team dynamics and performance in pediatric rapid response teams (Siems et al., 2017) and improves leadership, problem-solving, situational awareness, and communication in trauma and emergency teams (Parsons et al., 2018).

CRM is defined as a set of behaviors that can reduce adverse events during emergencies when combined with skills and evidenced-based knowledge (Corey & Canelli, 2018). When teams incorporate teamwork and communication interventions in response to emergencies, this core set of behaviors results in an effective and improved response, including improved patient safety and a reduction in adverse events (Alsabri et al., 2020; Moffatt-Bruce et al., 2017). Knowledge of these behaviors can assist the healthcare provider who responds to the inevitable crises that occur in all areas of practice.

Evidence-based practice! Crisis resource management (CRM) is a set of behaviors derived from evidence-based practice that can decrease the incidence of adverse events during an emergency response (Fanning et al., 2013). Teamwork and communication training and interventions improve patient safety to improve patient outcomes by reducing adverse events, including medical errors (Alsabri et al., 2020).

Self-Assessment Quiz Question #1

Aviation research from the '70s and '80s found that many adverse events were related to:
a. Mechanical failure.
b. Weather.
c. Human Factors.
d. Terrorism.

THE CRM FRAMEWORK

High-acuity and low-volume crises are areas where healthcare providers have historically demonstrated gaps in knowledge and practice necessary to respond efficiently and effectively. The Institute of Medicine report "To Err is Human: Building A Safer Health System," published in 2000, prompted health systems to look at internal response processes, identify areas where human factors could cause patient harm, and strategize for implementing training and systems improvements to prevent further harm (Kohn et al., 2000). In the aftermath of this report, the healthcare education field started exploring ways to teach all healthcare disciplines the necessary skills and behaviors to reduce preventable adverse outcomes. CRM training became one method to increase knowledge and skill for those responders to high-acuity, low-volume clinical situations. By definition, a low volume crisis, such as a hospital evacuation, rarely occurs but involves extreme risk to the patient.

Components of the CRM framework

There are multiple components in the CRM framework that, when combined and implemented, lead to an effective team response. The behaviors are classified in multiple realms:

- Team management - Leadership and followership, role clarity, and workload distribution.
- Communication - Task-oriented and information sharing.
- Resource allocation and environmental awareness.
- Dynamic decision-making.
- Cognitive aids.

The team management realm of behaviors includes identifying the situation leader, identifying other responding team members, and clarifying roles among all who are on the responding team. Also included in this realm are workload distribution of all the tasks needed (what needs to be done and who will do it) and the ability to get help promptly. When all responding team members are aware of the importance of these behaviors, there is cohesiveness to the response. Effective, concise communication, including information sharing, are behaviors that allow for safe and effective team responses. There are multiple communication techniques used during team responses that allow members to communicate needs and address inquiries effectively.

Situational or environmental awareness requires that the healthcare provider anticipates and plans for all possible trajectories. Knowledge of the environment and the ability to effectively mobilize resources allows all members of the responding team to perform at their highest level. Utilization of these behaviors reduces delays in care, leading to the ability to improve outcomes.

Another integral concept within the CRM framework is making decisions in a dynamic and evolving situation. The behaviors specific to this concept include awareness of the situation and using that knowledge to identify and use all available information in real-time decision-making. Within this concept, a key behavior taught in CRM education is to avoid fixation. Fixation is a situation in which a specific idea is the only driving decision-making concept. When a team gets fixated on one aspect of the response, there is an increased potential for an adverse response. Teams need to be aware of all factors influencing the situation. Fixation can delay the correct treatment because of misdiagnosis or the missing of key data to drive decisions and cause adverse patient outcomes.

The final concept includes the use of cognitive aids. Some examples of cognitive aids that will be discussed later include advanced cardiac life support (ACLS) algorithms, emergency medication dose cards, and prepared evacuation plans. These tools can assist all healthcare team members in remembering specific information without relying on memory during an intensely stressful moment. Knowing what aids are available and familiarity with the content is valuable during an emergency, allowing staff to respond more effectively (Goldhaber-Fiebert & Howard, 2013). When all the concepts and behaviors are trained together, teams can respond to the best of their abilities, and patient outcomes are improved.

Self-Assessment Quiz Question #2

The team management realm of the CRM framework includes identifying the leader, identifying other team members and:
a. Clarifying roles.
b. Rotating roles.
c. Allocating resources.
d. Coordinating data.

Team management

The team management realm includes the behaviors that assist the responding team in having a coordinated, effective response that leads to an outcome. The main concepts are leadership and followership, role clarity, workload distribution, and requesting timely help.

What defines a team? A team is a group where individuals bring varied strengths, and a common goal can be attained when combined. Teams can be permanent/ dedicated or temporary. Some hospitals have dedicated code response teams where they train together and master their skills as a team. Many hospitals

have temporary code response teams where the team comes together to resolve the issue (cardiac or respiratory arrest; city wide disaster responses). These temporary teams often cannot train together. An element of both categories of teams is that all the necessary skills be present to achieve a positive outcome.

Leadership refers to the need for one distinct leader for the emergency response team. The leader directs the team throughout the emergent event toward the common goal. For cardiac arrest teams, the goal is successful resuscitation; in disaster management, it is the safe evacuation of all in the disaster's path; in a fire, it may be the safe removal of patients and extinguishing the fire. The goal will vary depending on the exact situation. In CRM, the leader is considered an oversight role, not an active participant; the leader decides, prioritizes, and delegates to the team members the tasks to be completed to achieve the desired outcome (Fanning et al., 2013). The leader coordinates team members' activities by ensuring that the team has the resources needed, communicates clearly, and acknowledges that directions are understood and changes in goal attainment are shared in real-time (Gangaram et al., 2017). Leaders are encouraged to also empower all team members to speak up with any pertinent information they have that can assist in patient care and decision making.

The leader can be determined by skill set or institutional hierarchy. In medical situations such as a cardiac arrest, the leader is usually a physician or licensed independent provider (LIP), such as a nurse practitioner authorized to implement ACLS care. In some institutions, the leader may be the most experienced provider present but could also be a provider-in-training with an experienced provider or supervisor providing close supervision and support. The most critical point of leadership is that there must be one clearly identified person in charge. The leader needs to state this when assuming the role so all those responding are aware. Team training courses teach leadership skills emphasizing how to clearly articulate that they are filling the leadership role. For example, the leader declares in a loud voice, "I am Dr. Jones, and I will be leading this code blue." This statement clarifies for all involved who is in charge.

For any team with a leader, there must be followers. What defines the role of followers in an emergency? Followers also have distinct responsibilities based on their roles. The leader will direct all team responders in the follower role, and the roles will vary depending on the type of response. In a cardiac arrest, responders perform different standardized roles to administer ACLS protocols: performing cardiopulmonary resuscitation (CPR); assessment of pulses; timing of tasks; medication administration; performing medical procedures; and documentation/scribing of the event. For a fire, the roles may include extinguishing the fire, removing patients, activating the emergency response (911, code red, etc.), or shutting off the main oxygen. During a weather emergency, the responsibilities include ensuring adequate staffing, securing replacement staff, utility, and facility management, and troubleshooting issues that may arise. All followers should be adequately trained and competent to fulfill their roles; for example, skilled in using a fire extinguisher or appropriately licensed and knowledgeable for the role. For example, pharmacists are the knowledge experts on medications; from administration to ensuring that the medications are used appropriately during a cardiac arrest.

Role clarity, which is when responders are aware of their responsibilities during the emergent situation, is necessary to organize the team and minimize chaos. Roles may be assigned by a leader, self-assigned by the team member, or designated by a specific skill set. The leader must know that all essential roles are filled by a competent team member. These roles are dynamic depending on the emergent situation and the responding staff.

The leader must clearly identify who specifically should be performing a role/task. When a leader states, "can someone please monitor the patient's pulse" there can be confusion on who should be completing the task, leading either one person, four people, or no one (if everyone assumes that someone else filled the role) to monitor the pulse. The leader must specifically identify someone by name or by some descriptor. It is common that temporary formed responding teams may not know each other by name, especially in rarer emergencies such as disasters. For example, if you state, "Can you in the red sweater please write down all the patients that we send to the evacuation unit?" The person in the red sweater must then close the communication loop by acknowledging that they received the message. These small steps will help reduce confusion in chaotic situations and prevent delays in achieving the common goal.

Occasionally the roles are defined by the task being performed. Most cardiac arrest teams include a respiratory therapist and an anesthesiologist, who position themselves at the patient's head during the response. For example, some hospitals have standardized locations for where each responder should stand during a cardiac arrest in relation to the patient. When a standard role map is used in an institution, the leader can assess visually when a role is not filled and reassign someone to that task.

Workload distribution addresses the performance of multiple critical tasks that must be completed simultaneously. The leader is responsible for ensuring that all delegated tasks occur effectively by those most competent for the role. Workload distribution includes appropriate role delegation in an ever-changing emergent situation. Role delegation is not intuitive for many healthcare providers and is one reason why CRM behaviors are taught and practiced (Fanning et al., 2013). Leaders must continuously reassess the situation and confirm that the tasks are performed by the most competent person present at the time. Leaders also must consider the need to adjust roles within the emergency. Reassigning staff when a person's skill set may be better utilized in a different role falls to the leader. If a nurse is needed during a cardiac arrest to administer medications, the leader may ask the medical student who is BLS-certified to perform cardiac compressions and move the nurse to the nursing specific role. If the leader is the only provider competent in a specific task, then the role of the leader must be filled by another competent provider during the time the leader is otherwise occupied. This may occur when the leader is the only one present to perform a procedure such as a needle decompensation of a pneumothorax. The leader should ask another physician to assume the role of leader. For example, "Dr. Jones, can you assume the role of leader, while I perform this procedure." By stating this out loud, the entire team is aware that the leadership of the situation has changed. The leader understands that the concentration needed to perform the procedure precludes him from monitoring the entire team response.

The final concept under teamwork is requesting help in a timely manner. The hesitation in calling for help has been shown to increase adverse outcomes (Leonard et al., 2004; Ozekcin et al., 2015). Barriers to calling for help include personal (I may come across as not being smart), interpersonal (the person needed may have yelled at the leader in the past), cultural (I am in charge, and it is my job; SWAPNet, 2018). Calling for help early allows for the arrival of others who can offer second opinions, extra hands to complete all the tasks, and skilled team members to fill specialty roles.

One example of improved patient outcomes is the initiation of rapid response teams (RRT) to respond to situations immediately once a clinician suspects a subtle or noticeable decline in patient status. Hospitals that utilize RRT responses demonstrate improved patient outcomes by intervening before the patients experience cardiac or respiratory arrests (Jackson, 2017). An important skill is knowing when to call for help and which level of response is needed.

Many institutions have an internal disaster and emergency response plan. In today's changing world, there is a need for emergency responses of healthcare teams, for situations such as natural disasters (earthquakes, hurricanes, tornadoes), mass casualty events (train derailments, plane crashes, mass shootings, terrorist attacks) and infectious disease epidemics (COVID, Ebola). Internal disasters include events such as a power outage, infant abduction, or a combative patient. The Joint Commission requires hospitals receiving Medicare and Medicaid reimbursements to have established disaster planning and health system readiness, for disaster management (Al

Harthi et al., 2020; Lagan et al., 2017). Plans can be developed locally at the institution level or the state, county, and city-wide level. Leadership at all levels will provide direction to individual responders in disasters that involve more than one institution. The City of Boston instituted many levels of disaster responses during the Boston Marathon bombing. Each hospital that had casualties implemented its disaster plan, and the city itself implemented a city- and statewide response to move all injured to appropriate facilities.

Self-Assessment Quiz Question #3

What must be done to ensure effective leadership if the leader is the only person competent to perform a procedure?

a. The charge nurse must verify the credentials of the leader to perform the procedure.
b. All team members are consulted to choose the new leader.
c. The leader must identify a replacement leader and announce the change in leadership to the team.
d. The leader continues in the leadership role while performing the procedure.

Staff education on their role in various scenarios is necessary to assess and respond to the situation appropriately. Often, emergency response teams are activated when current resources may not provide the bandwidth to accomplish the necessary tasks. Local staff nurses must understand when to call for assistance and the appropriate level of help needed. The level of help will vary depending on intrinsic factors, such as the situation itself, location, time of day, levels of experience of caregivers/responders, situational complexity and institutional limitations. For example, a teaching hospital may have more resources available during the day when attending MDs and more support services are present. At night, resources are scarcer, often consisting of less experienced staff, and a call for help should be initiated sooner to allow for resource mobilization. Several persons should be trained in each role to allow for absences during an emergency situation.

Some institutions have layers of responses, and all staff must be educated on the appropriate response at a given time.

When a patient is decompensating, does the situation require a response from a physician, a rapid response level team, or the full response for an impending life-threatening event? This varies depending on the institution's policies and responding teams available. For example, if a patient is having increased work of breathing and the institution's rapid response activation brings a respiratory therapist and critical care nurse, this may be the appropriate team. However, if an imminent airway collapse occurs, the need for an anesthesiologist would require the activation of the cardiac arrest team, which includes the anesthesiologist, respiratory therapist, and critical care nurses. In the event of a disaster, the call for assistance may extend to external resources given the extent of the crisis. Knowledge of the institution's policies on when to utilize internal versus external resources is important.

Evidence-based practice! Since the implementation of rapid response teams, a level of team activations called at the first sign of patient decompensation, there has been a demonstrated decrease in cardiac arrests (Jackson, 2017). Implementation of a special team to respond to patients presenting with signs of sepsis has been shown to reduce mortality rates from sepsis (Simon et al., 2021).

Healthcare Professional Consideration: Responders to an emergent event need to either verbally state their role in the response or solicit from the leader what their role should be.

Self-Assessment Quiz Question #4

Emergency response teams are often called when current resources may not provide the bandwidth to accomplish the tasks needed. Therefore, local healthcare professionals must understand when to call for assistance and:

a. The location of the nearest telephone.
b. The level of help needed.
c. The increased cost to the patient.
d. When the family typically visits.

Communication

Communication is vital in any situation where multiple responders converge to remedy a situation. Human error is a common contributing factor in communication failures during emergent situations. When an error leads to an adverse event, a root cause analysis may be performed. A root cause analysis is the process used by an institution to find the cause of an adverse event and identify potential solutions. Root cause analyses of adverse events related to emergent situations often find either a lack of or ineffective communication as the cause. Emergent situations, by nature, are often chaotic. Often, multiple conversations occur simultaneously as responders attempt to either obtain or share pertinent information. Research on the effective attributes for team leaders ranks communication as the most important aspect in the successful management of an event (Mo et al., 2018). A leader's ability to communicate needs/directions concisely with closed-loop techniques increases success (El-Shafy et al., 2018). Closed-loop communication is the technique when the person making the request clearly states all elements of the request to a specific person who confirms that the request is received and, after completing the task, states it back to the leader or person who initially gave the request. A leader shouting orders into the room without identifying the recipient can lead to unattended tasks or over-allocation of resources to one task, leaving another important role unattended. For medication requests, the best practice is to request the medication, including all pertinent elements – medication, dose, concentration, and route. The person preparing and administering the medication should restate the medication, dose, concentration, and route to prevent errors. It is also important for medication administration to verify that the medication is still needed before administration as most emergent responses are dynamic, and the patient's condition may have changed.

One example of effective closed-loop communication is the following exchange between the Licensed Independent Provider (LIP) and the nurse treating a patient who is experiencing an anaphylaxis type event:

LIP: Nurse, please prepare a dose of epinephrine 0.3mg of the 1mg in 1 mL, for IM administration.

Nurse: Preparing epinephrine 1 mg./ mL 0.3 mg for IM administration.

Nurse: Epinephrine 0.3 mg is ready to be administered IM. Do you want me to administer now?

LIP: What is the concentration?

Nurse: 1 mg in 1 mL.

Physician: Yes. Please administer now.

Nurse: Epinephrine 0.3 mg of 1 mg/1 mL has been administered IM at 3:10 p.m.

Documenter records time of administration: Epinephrine (1mg/1 mL) a dose of 0.3 mg IM administered at 3:10 p.m.

In the example above, all the elements of a safe medication administration were addressed during the exchange, preventing an error of the wrong dose, concentration, or route. Epinephrine is one medication that is prepared based on concentration and administered differently depending on the situation – anaphylaxis versus cardiac arrest and supplies on hand.

Closed-loop communication should also be used when asking for tasks to be accomplished. For example, when needing to assign a new role:

Leader: I need someone to contact the cardiac cath lab. Joe, can you contact them?

Joe (*medical student*): Yes.

Joe (*after calling cardiac cath lab*): I called the cardiac cath lab and they stated they want us to call back when patient is stable to travel.

Leader (*acknowledging receipt of message*): Thank you, Joe.

Another form of communication used in CRM is known as "state of the response." The state of the response involves the relay of information between the leader and team members on the activities and status of the response. These communications occur at frequent intervals and provide the team with the specifics on what has occurred, allowing the team members who arrive at different times to be updated on what has happened and the current status. The state of the response communication can also be used to solicit input from any team member on tasks completed or ideas on future interventions.

The following is an example of this state of the response, or state of the union, communication by the leader during a cardiac arrest:

MD Leader: "We are at 4 minutes. Patient Doe was found unresponsive and pulseless. CPR was initiated at that time; initial rhythm was identified as PEA (pulseless electrical activity). One dose of epinephrine administered at 2 minutes. We are now going to reassess the cardiac rhythm and pulse; CPR will continue if rhythm unchanged. We will explore the H's & T's to identify the cause of the PEA. Does anyone have anything to add?"

RN: I sent the morning chemistry and the lab just called. The potassium is critically low at 2.2.

MD Leader: Thank you, let's consider hypokalemia as part of the issue and initiate some treatment. Pharmacist, can you prepare for an infusion of potassium? Also, we need to check magnesium level and should anticipate replenishing that as well."

During a cardiac arrest caused by PEA, the best way to treat the PEA is to identify the cause. The causes of PEA arrest are often referred to as the H's & T's.

H's	T's
• Hypovolemia.	• Tension pneumothorax.
• Hypoxia.	• Tamponade, cardiac.
• Hydrogen ion (acidosis).	• Toxins.
• Hypoglycemia.	• Thrombosis-pulmonary.
• Hypo/Hyperkalemia.	• Thrombosis-coronary.
• Hypothermia.	• Trauma.

In this case, the nurse added that lab abnormalities potentially caused the situation. This technique allows for controlled conversations to occur among the team in a succinct way so that important information is not lost in the chaos of an emergent situation. Also, the summarization of events, and the naming of the situations like PEA for a rhythm or active shooter for an environmental response, gives all responders a shared mental model of the situation. All cardiac arrest team members usually have ACLS knowledge and know that the PEA algorithm is different from the ventricular fibrillation algorithm.

Those in an environmental response know that an active shooter response differs from a fire response. In each situation, the leader may eventually become a person from outside the institution, such as the fire chief or the police responders. Attention to their instructions can be lifesaving.

Experienced leaders may state something such as, "I am going to summarize the events so far; please keep performing your assigned tasks while I speak." This prevents the disruption of crucial tasks but gains all members' attention. This open sharing of information allows all members to actively be involved despite any preconceived hierarchy.

Some institutions have a process called "stop the line" or CUS (concerned, uncomfortable, safety issue) in their emergent response procedures to give all members of the team a chance to pause actions if they feel something unsafe may be occurring (Cammarano et al., 2016; Hunt, et al., 2007). An example of this may be ordering a medication for a situation that is not appropriate (an allergy, incorrect dose, or misidentification of the cardiac rhythm) to prevent an adverse outcome. "Stop the line"/ CUS should trigger a conversation where the leader explains the rationale for a specific action or clarifies the action. Stopping the line is a critical method of communication for nurses, who often have knowledge and experience in emergent situations, but may feel restricted in speaking out in a hierarchical team setting with those they perceive to have higher authority. An example may be in a teaching institution where the relatively inexperienced MD leader orders a dose of medication that is incorrect, and the experienced pharmacist responding to the situation states that the correct dose of that medication in this situation is different.

Universal time-outs in the operating room and procedural settings were developed to equalize all team members around patient safety (Van et al., 2017). By stopping to check for the accuracy of the surgical site, correct procedure, and patient identification, serious errors may be prevented. Universal time-out procedures are an important safety process that allows for conversations that impact patient safety during critical situations when a patient may not be able to speak for themselves. This process allows all involved to speak up and raise concerns and is supported by the Joint Commission in the National Patient Safety Goals as a safety component helpful in reducing wrong patient and wrong side procedures (Gonzalez et al., 2018).

Self-Assessment Quiz Question #5

What form of communication allows any responder to an emergent situation to pause action for clarification?

a. Shared mental model.
b. Equal hierarchy.
c. Stop the line.
d. Closed-loop communication.

During a time of chaos, as in emergency responses, all responders must be aware of what they are communicating. During emergencies, a type of common communication that can occur is termed "collateral communication." Collateral communication occurs when important conversations happen among multiple team members and may or may not be necessary for the situation's outcome. An example of an important conversation may be one between the RT and anesthesiologist on the difficulty of placing the endotracheal tube.

Anesthesiologist: I have the tube in place, but I did not have clear visualization of the vocal cords, are you meeting resistance in bagging?

RT: I am meeting some resistance. I am going to check breath sounds. (RT listens to the chest and abdomen).

Anesthesiologist: Are they equal?

RT: There are diminished sounds on the left. You may be in the main stem.

Anesthesiologist: I am going to pull this ET out and retry. Prepare AMBU ventilate.

This conversation may impact the situation and should be shared with the leader:

Anesthesiologist: We had difficulty with the first attempt at intubation. We are going to try again after re-oxygenation.

Leader: Thank you for the update. Can you maintain the airway?

Anesthesiologist: Yes, bag mask ventilation is effective.

Leader: Let me know when you secure the airway.

Another example is the conversation between the nurse and the pharmacist about the calculations for a drug dosage.

RN: The leader wants us to prepare a dopamine infusion at 5mcg/kg/min.

Pharmacist: The standard concentration of this infusion is in the code cart and is 400mg in 250 mL. Will you be administering via the infusion pump?

RN: Yes, I will be using the smart infusion pump medication programming.

This conversation does not need to be shared with the leader but is necessary for the responder's role. The participants must assess collateral conversations as to their necessity and whether they need to be brought to the entire team and leader's attention.

Patient safety is the goal in emergent situations, and effective communication skills directly impact patient outcomes. Closed-loop communication combined with verbal read back of medication and procedural orders from the leader ensures that the entire team is aware of the progression of care in an often-chaotic situation. Followers are integral members of the response team, and their communication throughout the situation can add to successful outcomes and reduction of adverse events.

Evidence-based practice! Universal time-outs are an example of safe communication practices that ensure all systems are in place to prevent adverse outcomes. These protocols allow for equalization of all team members in providing for patient safety (Van et al., 2017).

Healthcare Professional Consideration: Healthcare providers must ensure that all verbal orders for interventions and medications are communicated in a closed-loop format, using a verbal read-back format to the ordering provider to verify the correct order.

Self-Assessment Quiz Question #6

The participants must assess collateral conversations regarding their necessity and:

a. Whether or not they delayed treatment.
b. If they need to be documented.
c. If the patient's family should be included.
d. Whether they should be brought to the leader's attention.

Resource allocation and environmental awareness

Knowledge of the environment is crucial for effectively managing an emergency. All team members who respond or can be involved in an emergency must know where equipment, medications, or supplies are located and how to use them. Many institutions provide the orientation to environments at the start of employment; however, periodic refresher training is essential. All staff should learn where the crash/code cart is for cardiac arrest response. Staff should be aware of the location of fire extinguishers and oxygen shut-off valves in case of a fire, as this is necessary for effective responses and part of their role. Healthcare providers in hospital and non-hospital settings should know the evacuation route, fire safety plan, and medical emergency equipment (AED, for example). All staff should also be aware of the internal and external disaster plans and their roles in the response. Knowing how to access response teams is another component of resource allocation. Knowledge includes understanding how the response team activation changes at different times (weekends, holidays, and off-shift times).

CRM behaviors include anticipation and planning for all potential outcomes of an emergent situation. An example of the variable nature of CRM is how the response to a cardiac arrest within a hospital has different steps than a similar situation in an outpatient or other setting. Outpatient cardiac arrests or medical emergencies may include the stabilization for external transport. Staff must know the steps to follow in these low-volume, high-acuity situations. For example, staff in an outpatient setting should know the procedure for contacting the ambulance service – is the policy to call them directly or activate the community 911 service? Training for this type of situational response should include earlier activation to enhance better patient outcomes in the hospital setting.

Resource allocation includes the appropriate use of trained and untrained personnel and the use of all available equipment. An example of using untrained staff may be asking the clinic's non-medically trained receptionist to go to the main entrance and show the EMS responders to the correct room. Inadequate use of available resources is a significant cause of adverse events in healthcare in CRM research (Abualenain, 2018). Team members' knowledge of how to access the resources and understanding potential barriers or reasons for personnel or equipment delays can make a difference in patient outcomes.

Self-Assessment Quiz Question #7

Knowledge of the protocols for responding to a fire is an example of:

a. Collateral communication.
b. Shared mental model.
c. Closed loop communication.
d. Resource allocation.

Dynamic decision-making in a crisis

Dynamic decision-making occurs when decisions are made related to the information presented and responses to actions performed and environmental factors. These complex decisions must occur in real-time and are influenced by the experience level of the decider (Edwards, 1962). The elements of dynamic decision-making include situational awareness, implementation of all available resources, use of cognitive aids, and avoiding fixation errors. Responding to an emergency is stressful, and the stress and urgency can impact the ability to function effectively during the situation. When the responder uses all available resources during a crisis, it improves their ability to make effective decisions during an ever-changing event (Fanning et al., 2013). This section will explore the concepts of dynamic decision-making as used in team settings.

A team, as defined by Salas (1992), is "two or more people who interact dynamically, interdependently and adaptively toward a common and valued goal/object/mission, who each have been assigned specific roles or functions to perform, and who have a limited lifespan of membership" (p. 4). Teams that respond to codes, rapid response, medical emergencies, and disasters all fit this description. The teams must function effectively to meet the shared goal. Each individual who is part of a team in healthcare brings their specialty-specific knowledge and training to the situation to achieve the desired outcome. The leader of the team uses knowledge of the individual members' skills to achieve a positive patient outcome.

Situational Awareness

An individual's situational awareness is the perception of critical information and data from the environment based on both past experiences and expectations. Each team member must be able to perform their specific tasks. The information utilized during the situational awareness process comes from the person's working memory, leading them to decide on the actions best suited to the event at hand (Salas et al., 2017). When applying situational awareness to a team, the process becomes more complex as both communication and information sharing affect all members present. As the central point person, the leader integrates all the data collected from the members and then communicates to the team their decision-making process to achieve the shared goal. The process is dynamic as there is a constant reassessment of the situation and adjustment of actions based on the data perceived. An example of this would be sharing of information related to a patient's current status during a pulse check during a cardiac arrest.

RN: Patient is still without pulse and lab just called up a potassium of 2.1.

MD: The current rhythm is still PEA.

Leader: Thank you, please continue CPR. We have given 2 rounds of Epi. Prepare for the third dose, and given the potassium, let's prepare to administer some potassium, Pharmacy do you have some suggestions?

The leader in this example gathered information, summarized, and dynamically decided an action based on the information shared. This leader also demonstrated the use of expert knowledge in formulating the plan.

Self-Assessment Quiz Question #8

The implementation of available resources, situational awareness, and use of cognitive aids are concepts utilized in what process?

a. Stop the line.
b. Dynamic decision-making.
c. State of the union.
d. Collateral communication.

Situational awareness in healthcare is enhanced when team members notice the subtle cues presented and reassess these cues to prioritize actions specific to the situation (Fanning et al., 2013). An example is when a team is responding to a medical emergency of a person found unresponsive in a lobby located in the building where the diabetic and nutrition clinic is located, and the team leader uses data to evaluate the situation. This dialogue represents the clinical team's use of situational awareness:

Security guard: I did not see anyone nearby when I walked into the lobby and called the alert. It does not appear that this man was assaulted.

RN: When I arrived, I found this person on the ground, unresponsive to touch and voice, low respirations and heart rate of 50. There is no one who knows this person.

MD: Do we know if this person is wearing any medical condition alerts? Perhaps they are a diabetic since we are in the same building as the clinic. Nurse can you support respirations and security can you call for transport to ED?

RN: No alert bracelet is on the patient.

Security: There is a prescription bottle in this pocket for oxycodone.

MD: Okay, let's reconsider what may be happening. Nurse, can you get a blood sugar, monitor respirations, and consider the possibility of an overdose of narcotics? Let's get him to the ED so we can give Narcan.

The MD leader needed to adapt to new information presented and adjust actions to the situation. In this example, the lack of a medical alert bracelet and discovering a prescription bottle steers the physician from further assessment for critical alterations in blood sugar levels to potential opioid overdose. Medical dynamic decision-making uses patient observations of patient presentation and status and incorporating new data into making the appropriate decisions. Continued adaptation is necessary as priorities and interventions will constantly change throughout the situation.

Members of the Royal College of Physicians and Surgeons in Canada (2017) have produced a comprehensive document on CRM in which they have divided the concept of situation awareness into three levels, including their corresponding definitions and potential risks (see Table 1). Level One is attention to diagnostic cues and prioritizing those cues most relevant to the situation. A practiced clinician will successfully hone in on essential cues based on experience and retain the relevant ones while disregarding less important or irrelevant ones. In this process, one must avoid fixation and overlooking other relevant cues that will aid in decision-making and potential alternative diagnoses. Level Two is synthesizing all cues, critically thinking about, and integrating, all presenting information to understand the situation completely. Novice clinicians will be less capable of pulling cues and information together to gain a comprehensive picture of the patient situation. These skills emerge and evolve with experience. Level Three of situational awareness, which builds upon the previous two, is a prediction of outcomes. This process entails pulling together relevant cues, patient history, and clinician experience to predict what happens next. Again, more experienced clinicians will draw on their prior experiences and knowledge to minimize errors in prognosis and continue to react to new information and cues as they arise.

Table 1. The Three Levels of Situation Awareness

Level	Pros	Cons
One: Recognition of Cues	• Attention is focused more quickly on important cues. • Irrelevant cues are discarded to facilitate more efficient decision-making.	• Attentional blindness or fixation errors can cause premature cognitive closure because of reliance on assumptions and/or prior knowledge.
Two: Synthesis of Cues	• Prior experience and knowledge is used to more quickly and efficiently synthesize information.	• Tendency to favor common and easily retrievable patterns may result in misdiagnosis.
Three: Prediction	• Future events can be anticipated and planned for (i.e., being proactive rather than reactive). • Additional resources can be prepared earlier in the treatment sequence.	• Errors in predication can result in under- or over-cautious responses.

Note. Adapted from Brindley, P.G., & Cardinal, P. (2017). *Optimizing crisis resource management to improve patient safety and team performance: A handbook for all acute care health professionals*. Royal College of Physicians and Surgeons of Canada.

Resources

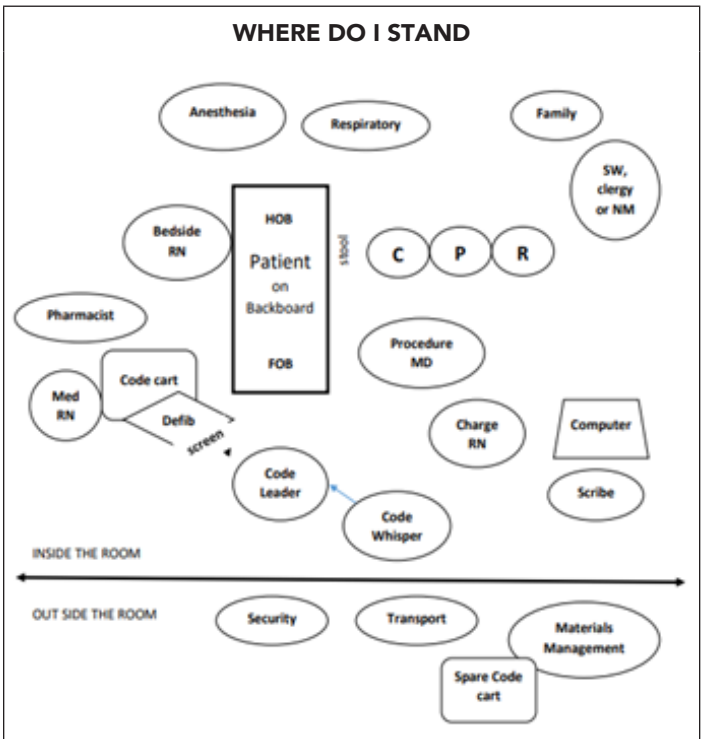
Responders to a crisis must rely on multiple facets of information, including memory, past experiences, and established standards of care, to provide the necessary interventions during the emergency. Each team member needs to be able to obtain and process the information to prioritize care. Information sources used in an emergency include medical records (hard copies and electronic for past medical history, laboratory data, current hospitalization data) and internal and external internet resources (policies and procedures, protocols, medication guidelines, and standards of care). The leader may assign a responder to research data from these resources; a skilled leader may often ask a less technically skilled staff member to perform this task. Medical students at a code may be asked to review the patient's record for lab results or pertinent history. The leader should know the non-technically skilled person's knowledge level and ensure that the person assigned this task understands the context. When assigning the task of looking for pertinent lab values, the leader may need to provide guidance- "please look for all abnormal electrolyte values and report back". Leaders of other members may need to provide more direction to the less experienced staff. The leader in the example above stipulated that they wanted a review of recent electrolytes for the potential diagnosis of cardiac arrhythmia.

Cognitive aids

Using cognitive aids is a common practice in emergent situations. Cognitive aids are tools developed to assist in decision-making during a crisis, and their purpose is to provide pertinent information necessary to formulate a plan of action related to the context of the situation. Cognitive aids ensure consistent delivery of evidence-based care based on research and practice, and teams that use them have more appropriate, efficient decision-making (Goldhaber-Fiebert et al., 2016). Cognitive aids used in emergencies have been established for life-saving protocols, including BLS, ALCS, and PALS (pediatric advanced life support), malignant hyperthermia protocols, surgical safety checklists for the ORs, and OB hemorrhage and emergent C-section pathways (Alidina et al, 2018).

Cognitive aids must be evidence-based and approved by the institution as best clinical practice or standard of care. Some cognitive aids are well-known and accepted; for example, all the American Heart Association (AHA) protocols for life support and advanced life support. They are updated based on evidence-based research every five years, with the last update occurring in 2015 (Hazinski et al., 2015; Merchant et al., 2020). Most institutions accept these algorithms for responding to cardiac arrests.

The individual institution can develop other cognitive aids. An example is a map of where responders are expected to stand when responding to a cardiac arrest. The "Where Do I Stand" figure was developed by a large academic medical center and shows the key roles of responders and their functional position centered on the patient. The figures provide a visual representation of responders and can assist other team members to notice if any members are absent, allowing someone to assume the role. The anesthesiologist and respiratory therapist deal with the airway and always stand at the head of the bed. The pharmacist and medication nurse stand at the code cart to prepare the medications. If the event is documented within the electronic medical record, the nurse or scribe who records the event will be at the computer.



Where do I stand diagram for code blue responders at Jones Medical Center. CPR represents three staff who alternate every 2 minutes. Code Whisperer supports code leader. Defibrillator is located on code cart, but is placed so code leader can view monitor screen at all times. If family present, they are supported by social worker, Clergy or nurse manager.

Notice on this figure (Corey, 2016) that there is also a role called the "code whisperer." This institution has a person assigned to support the leader. The institution is an academic facility, and often less senior and inexperienced staff may act as the leader in an emergency. The code whisperer may be a more senior or experienced staff member with a cognitive aid such as the AHA ACLS card, providing cues and protocols to the leader of the event.

Evidence-based practice! ACLS, BLS, and PALS are cognitive aids developed and updated every 5 years by the American Heart Association to assist a responder in life-threatening events such as cardiac arrest, choking, and pediatric emergencies (Merchant et al., 2020).

Healthcare Professional Consideration: Health Care providers, in their role in a response, collect data through assessment of the patient. It is imperative that pertinent data is shared with the leaders of the response so that timely decisions can be made incorporating all the data points.

Self-Assessment Quiz Question #9

"Where Do I Stand" is an example of a:
a. Cognitive aid.
b. Response algorithm.
c. Mnemonic device.
d. National response tool.

Fixation errors

Situational awareness, necessary for managing a crisis, requires the team to be cognizant of what is going on in the immediate environment. Fixation errors occur when a team member stalls on only one aspect or detail and may miss other pertinent data, and there is a failure to change the course of action without consideration of any new information (Fioratou et al., 2010). Fixation can be related to tasks or diagnosis (SWAPNet, 2018). There are three main types of fixation errors: *This and only this;* **Everything but this; and Everything is OK** (Ortega, 2018).

This and only this is the inability to see any other possible solutions to a situation except the one the person is doing. An example is when a leader may believe that the patient's symptom of desaturation is related to an airway issue (misplaced endotracheal tube) when the issue may be circulatory collapse. The interventions for these causes are very different. Time spent focused on the airway and reinserting a perfectly functioning airway while not focusing on the low perfusion and shock state could negatively affect the patient's outcome. Communication to the leader on new information is critical in preventing this type of fixation error (Ortega, 2018). This type of error can be avoided by the leader stating what they see as the cause or diagnosis during the state of the response updates and then allowing other responders to provide input.

The **Everything but this** fixation error is when the responder pursues irrelevant data and does not choose the best course of action for the issue (Miller et al., 2014). An example is when, after inserting an endotracheal tube, the anesthesiologist meets resistance when ventilating the patient and explores the possibility of tube misplacement, rather than that of a foreign body, pneumothorax, or chest wall rigidity. The time spent reinserting the tube caused the patient to be hypoxic longer than necessary and delayed searching for the actual cause of the desaturation. This error is often seen when a provider has less experience in the presented situation. Communication among team members and asking the team for input allows the entire group to play a part in the decision-making on a course of action for this type of error.

The final type of fixation error is **Everything is OK**. This is when an abnormal finding is attributed to an artifact or the failure to recognize signs of deterioration (Fanning et al., 2013). For example, the vital sign finding of low oxygen saturation is attributed to a detached probe when the patient may be in

respiratory arrest or recycling the BP because no blood pressure was registered. Utilizing assessment data from multiple sources can prevent this error. For example, in this situation, a clinician should be assessing the respiratory rate and effort as well as using the cardiac/respiratory monitoring systems. All three of the fixation errors can cause delays in treatment and increased mortality and morbidity. Using team members for alternate solutions is one strategy in preventing or identifying fixation errors early. Another strategy is to conduct team training that includes examples of these errors in a simulated event and to have the team members practice the communication techniques of closed-loop, state of the response, and stop the line.

Evidence-based practice! Fixation errors are something that crisis responders want to avoid. A fixation error is failure to change course of action without considering any new information (Fioratou et al., 2010). There are three main types of fixation errors: The and only this; Everything but this, and Everything is OK (Ortega, 2019).

Self-Assessment Quiz Question #10

The fixation error of not being able to see any other possible solution to a situation is known as:
1. This and only this.
2. Everything but this.
3. Everything is OK.
4. Where Do I Stand?

SPECIALTY TEAM MEMBER ROLES

Nursing

There are multiple roles for nursing in a crisis. The role will depend on the situation, whether it is medical in nature or a response to an environmental issue. The roles in a medical response will be related to a nurse's professional scope of practice as designated by the Board of Registration in the state of practice. Nurses who practice at advanced levels, such as nurse practitioners, may function at the higher level as a licensed independent practitioner. Typical roles for the staff nurse in a hospital-based cardiac arrest response include the bedside nurse, medication nurse, scribe, and circulator. Nurses in outpatient facilities, school nurses, prison nurses, or nurses in extended-care facilities may be expected to carry out extended CPR and disaster management roles according to established protocols. However, limited resources in these environments do not allow nurses to function beyond their legal scope of practice.

The patient's nurse should always stay in the room with the patient. This nurse knows the patient's history, most recent baseline state before any change in status, and may also have a relationship with the patient and family and can offer the additional relevant information as a result. For example, in response to a suspected active acute stroke, the bedside nurse will likely know the last well time, what medications the patient is on, and when they last had something to eat or drink. This can also apply to the outpatient setting, where the staff member or family member who is most familiar with the person having an emergency remains at their side to detail the events leading up to the situation.

Medication administration is one major nursing role during a crisis. Medication administration is within the scope of practice for nurses under LIP orders. Nurses in this role must practice closed-loop communication and verbally read back to verify the order given and understand the typical medications they are administering. Nurses in outpatient settings will need to know common situations that may occur in their setting and what the institution has on hand to assist the patient. For example, in an outpatient day surgery setting, the nurses would be trained for anesthesia-related emergencies or post-operative recovery situations. They would be familiar with narcotic reversal medications and medicines used for airway situations under the direction of the anesthesiologist. All nurses who work in inpatient or outpatient areas where medications are administered should also be aware of the treatment for severe allergic reactions, common medications used for them, dosing, and administration methods.

As administrators of medication, nurses should be aware of the resources available for them in this role. Pharmacists are also resources for medication storage, preparation, dosing, and administration. Medication guidelines may be stored with the emergency equipment/go-bag or available links for online resources. Some institutions have internal medication guidelines for their code teams on the crash/code cart. Others rely on commercial resources like the Broselow tape, which lists by color and weight the medication doses and equipment sizes for pediatric patients (DeBoer et al., 2005) or the AHA's ACLS, PALS, NRP (Neonatal Resuscitation Program) algorithm cards.

The scribe documents all the care and data during an emergent situation, including the time of treatments, medications, actions, and other important information, such as vital signs and patient assessments. There is often a scribe during situations such as fire and environmental disasters where patients are evacuated. To accurately account for the safety of all patients, there must be a record of all patients leaving the impacted unit and arriving safely to the planned evacuation unit. The scribe in this situation will also document the departure and arrival of all personnel and visitors.

In hospital settings, the nursing leadership will fulfill the role of bed manager. For medical emergencies, they will ensure that the patient is in the unit to provide the correct level of care. For environmental emergencies, they may oversee the relocation of affected patients with respect to the patient's acuity and staff resources. Decisions for the transfer of patients that are necessary for internal or external disasters are made by nursing management. Immediate rescue of patients may be made by the nurse first responding.

Pharmacists and respiratory therapists

Another resource that may be available in the hospital setting for code responses is a pharmacist. When a pharmacist is a code team responder, there has been a reduction in medication errors during resuscitation (Bolt et al., 2015; Ferguson et al., 2019). Pharmacists should be comfortable using the emergent drug systems on the code/crash cart and have a familiarity with the preparation of emergency medications.

When a pharmacist is part of the stroke response team, their knowledge of the preparation and administration of tPa is useful to the quick response of treatment for the patient. Respiratory Therapists have a specialized role of assisting in maintaining a patent airway partnering with the anesthesiologist. They provide bag-mask ventilation, assist with endotracheal intubation and support.

Pharmacists and Respiratory therapists will need to know the standards and regulations of both the institution and state where practicing related to their specific role in responding to an emergency.

Case study #1

Sarah is a nurse working in a subacute care facility. She has been working there for slightly over one year. Today she has a typical patient assignment and has also assumed the charge nurse role of her 25-bed unit. She is working with two other nurses: Jane, an LPN studying for her RN license and Ken, a per diem RN employee; and three nursing assistants: Dotty, a long-term employee in the nursing assistant role; Jeanne, a new nursing assistant who started less than a month ago; and Helen, a nursing student who works per diem as a nursing assistant. It is the 11 p.m. to 7 a.m. shift on a weekend night. The patients are

all stable, and the shift has been uneventful so far. At around 3 a.m., there is a burning odor coming from the kitchen area on the unit. Helen yells out that the coffee maker is on fire and that the flames are all over the table in the middle of the room. She runs into the hall and leaves the kitchen door open.

As the charge nurse, Sarah knows that she has a lead role in this emergency and has responsibilities related to fires. She cannot remember the specifics of her responsibilities but recollects that there is a manual on the unit at the nurse's station that has the disaster plans. As she runs to the desk, the R.A.C.E mnemonic immediately comes to mind. The following dialogue starts among the team:

Sarah calls out to Helen: Is the fire small enough to use a fire extinguisher on?

Helen: No, it is all over the room.

Sarah: Helen, please shut the door.

Sarah: Can someone call 911? Let's all shut the patient doors.

Jane and Ken start running down the hall shutting doors. Dotty and Jeanne also start closing all the other doors. Sarah runs for the extinguisher. It is another minute before Sarah realizes that the call to activate 911 did not occur. At the same moment, Ken realizes that no one activated the fire alarm and pulls the alarm. Smoke is starting to fill the hallway near the kitchen.

Jane: Do you think we need to move the residents in the two rooms near the kitchen?

Sarah: I think we might need to. Where do we move them to?

Jeanne: In orientation, they told me that there is an evacuation route for each unit, and it should be located at the nursing station.

Dotty hears this and runs to get the evacuation plan.

The night supervisor arrives after hearing the fire alarm and, realizing that there is a fire, asks what the situation is. Sarah immediately tells the night supervisor that they smelled smoke and Helen noticed the fire in the kitchen. The fire was too big to extinguish, so they closed the doors to all the rooms and pulled the fire alarm. She explains that they were just deciding if they need to move the residents in the rooms near the kitchen and where to move them.

Question:
What actions in the above scenario would be classified as components of CRM?

Discussion:
The scenario in the case study included the following components of CRM:

- **Leadership**: Sarah realized that she was the charge nurse and had a role as leader in situations such as a fire on the unit per the institution protocol.
- **Role assignment**: Sarah was aware as the charge nurse/leader that she needed to make sure that certain roles were filled to complete the necessary tasks. She assigned Helen to close the door to the kitchen, and asked that other tasks be attended too, such as calling 911 and shutting patient doors.
- **Communication**:
  - ***Closed loop***: Sarah initiated closed loop communication with Helen, asking her specifically if the fire was too large for the extinguisher, and, based on her response, assigning her the additional task of closing the kitchen door.
  - ***State of the union***: Sarah demonstrated a state of the union communication when she filled the nursing supervisor in on what actions had occurred up to that point in a succinct manner.
- **Resource allocation**:
  - ***Cognitive aids***: Sarah remembered that there were resources available for her to use during this type of emergency. She remembered that there was a manual for fires, the R.A.C.E. mnemonic, and Jeanne mentioned there was an evacuation plan for the unit.
  - ***Human resources***: Sarah delegated tasks and assessments to all the members of her team that were present during the emergency.
- **Situational awareness**: Sarah was aware that there was a situation and she needed to be a leader, assigning tasks and anticipatory planning for further escalation (need for evacuation of certain residents). She used data given to her from the team members — the inability to contain the fire and the potential risk to some of the patients located close to the fire – to further her decision-making.

Question:
What could have been done differently in the above scenario to improve the response to the emergency?

Discussion:
Areas for improvement based on the different components of CRM:

- **Leadership**: Sarah realized she was the leader, but she did not explicitly state this to her coworkers, who had varying levels of experience and may not have been aware that the charge nurse assumed leadership during an on-unit crisis.
- **Role assignment**: Sarah assigned Helen a specific role, and herself the role of getting the fire extinguisher. She should have delegated this to a team member. She did not explicitly state who should call 911 or shut all the patient doors, and her staff responded by all moving to close doors and no one called 911. She also did not assign anyone to pull the fire alarm, which may have alerted internal responders sooner. Without naming a specific person to carry out an important task, the task may not be completed at all or in a timely manner.
- **Communication**:
  - ***Closed-loop***: Sarah should have used closed-loop technique to ensure her role assignment was conveyed. By making eye contact or asking the person if they understood her ask, the loop would be closed. Any person completing a task must close the loop by stating that the task is completed. Sarah also should have verified, verbally, that someone called 911 if she did not get confirmation from the person assigned.
  - ***State of the union***: If Sarah had done a brief state of the union with her staff earlier, she likely would have realized more quickly there was an evacuation plan for the unit. She should have asked at the end of the state of the union, "Does anyone have anything to add?" Jeanne would have then mentioned the evacuation plan.
- **Resource allocation**:
  - ***Cognitive aids***: The institution where this fire occurred had a mnemonic tool (cognitive aid) to follow in case of a fire.
  - ***R.A.C.E.***: The R stands for Remove or Rescue. There was no one in the room of the fire to remove or rescue. However, nearby patients and those with respiratory compromise may need evacuation. A is for activation. Sarah did ask for activation – calling 911 – but did not assign someone which resulted in a delay, and she did not assign anyone to pull the fire alarm. C is for contain. Sarah did have Helen contain the fire to the kitchen by closing the door. E is for extinguish/evacuation. The decision that the fire was too large to extinguish was explored and made early. Sarah was in the process of deciding on evacuation when the supervisor arrived, discussing the need to move some at-risk residents with Jeanne and Dotty and remembering and obtaining the evacuation plan (cognitive aid).
  - ***Equipment***: In this scenario, specific equipment that team members would need to know how to use include timely use of the fire extinguisher, knowledge of the different types and when to deploy and use the correct one. The fire was considered too large for a fire extinguisher, but Sarah ran for the extinguisher later in

her response. Also, how to activate help for a fire, by locating and pulling the fire alarm.
    - ***Human resources***: Sarah did not immediately call for the internal human resource available to her – the nursing supervisor who has expertise to help her make decisions.
- ***Situational awareness***: As the leader, Sarah needed to be aware of a lot of information. She needed to free herself from task completion which distracted her from noticing changes in the situation and adapting as needed to ensure safety on the unit. An actual fire in a health care institution is a low volume high acuity event. All staff should participate in drills and review their role in such an event.

Case study #2

Theresa is a nurse on a medical surgical unit in a community hospital. She has been a nurse for over three years and only recently started working at this hospital. She has been trained in BLS and ACLS. She is working with three other nurses and two nursing assistants. On this weekend day shift, the hospitalist just arrived on the unit to see a patient that Theresa's coworker, Liz, is worried about.

Liz's patient is an elderly woman with pneumonia and heart disease. She has had increased work of breathing and her oxygen saturation has dropped to 90% on 2 liters by nasal cannula. Before the physician gets to the room, Liz calls out that her patient is unresponsive.

Theresa tells the unit coordinator to call a code blue and grabs the crash cart on her way to the room. She tells John, the nursing assistant, to remain on the floor and direct the response team to the patient's room when they arrive, and then to answer any call lights from other patients.

When she gets to the room, Liz is performing cardiac compressions and telling the physician that the patient desaturated as low as 68% and was gasping right before she became unresponsive and pulseless. The physician has his ACLS card open in his hand to refer to.

He verbally states that he will be in charge, and then asks Theresa to prepare epinephrine and the defibrillator. Theresa tells the other nurse, Jo, to put the backboard under the patient and then place the defibrillator pads on the patient.

Some of the responding code team members enter the room (ICU MD, pharmacist, and medical students). The physician leader begins directing code team members. He points to the medical ICU MD and says, "Can you assess the pulse and monitor the heart rhythm as soon as the defibrillation pads are attached?" The ICU MD nods assent. He then points to the first medical student and says, "Can you relieve the RN and continue compressions, changing at least every 2 minutes?" The medical student states he will. The physician then addresses Liz. "Liz, can you document please?" Lastly, he speaks to the second medical student. "Can you relieve the other med student as needed in administering compressions?"

The respiratory therapist (RT) and anesthesiologist arrive in the room.

***MD leader**: "Can you, Respiratory and Anesthesia, secure the airway and manage ventilation?"*

RT confirms task assignment heard with a nod at the leader.

Anesthesiologist: "What is the patient history and situation?"

***MD leader**: "The patient is 80 years old with worsening respiratory distress and became unresponsive and pulseless. Compressions were started. We are approaching 2 minutes. We will assess rhythm and defibrillate if necessary and administer epinephrine. Does anyone have anything to add?"*

No one adds anything. Jo places pads on the patient and turns on the defibrillator.

***MD leader**: "Two minutes. Let's pause compressions and switch compressors."*

***MD leader** (speaking to the ICU MD monitoring the patient's pulse): "Is there is a pulse?"*

***ICU MD**: "There is still no pulse."*

***MD leader** (looking at the defibrillator screen): "The rhythm indicates VF. Please prepare to defibrillate. Resume compressions."*

Jo turns the defibrillator to manual mode and asks the MD leader: "How much do you want me to set the defibrillator for?"

***MD leader**: "200 joules. Pharmacy and Theresa can you prepare 1 mg of epinephrine (1 mg/10mL) for IV push?" I also want to prepare a dose of Amiodarone.*

***Jo**: "Defibrillator is ready to deliver. Do you want me to proceed?"*

***MD leader**: "Yes, clear the patient and deliver the shock."*

***Jo** (delivers shock): "Clear please, shock was delivered."*

Liz documents the time of shock.

***MD leader** (to med student): "Please continue compressions."*

The nursing supervisor arrives and states that she will work on obtaining an ICU bed. The anesthesiologist and respiratory therapist are having a whispered discussion at the head of the bed. The anesthesiologist is having trouble seeing the vocal cords and placing the endotracheal tube. He is getting ready to make a third attempt. The RT ventilates the patient between attempts. The MD leader notices that there is a conversation between the two and asks the RT if there is a problem. The anesthesiologist then states that he is having difficulty securing an airway.

The MD leader asks RT to continue bag mask ventilations after clarifying that bag mask ventilations are effective. The leader then asks the ICU MD if he would be able to attempt to intubate the patient if needed, should resuscitation continue. The ICU MD responds that he can attempt if needed.

The pharmacist and Theresa are also having a conversation at the code cart on the dose of epinephrine. They refer to the guidelines of ACLS medications located on the crash cart for dosing. The pharmacist then prepares the epinephrine bristojet for administration. The pharmacist hands the prepared epinephrine to Theresa stating that it is 1mg in 10 ml for IV push. Theresa then states that she has 1 mg of 1mg/10mL epinephrine ready to administer. MD states to administer the epinephrine dose. Theresa administers, and states "epinephrine 1 mg administered." Liz documents the time administered. One and half more minutes pass. The MD leader asks the compressor to pause and assesses the cardiac rhythm. "There is return of spontaneous circulation evidenced by a pulse," states the MD on pulse. Rhythm is stated to be bradycardia at a rate of 50. The MD leader then says, "Let's stabilize and see if we can get this patient into the ICU."

Question

What examples of communication were demonstrated in this case study?

Discussion

Communication techniques demonstrated:

- **Closed-loop communication**: This was effectively demonstrated throughout the case study. The MD leader, Pharmacist and Theresa demonstrated this during the entire process of epinephrine preparation and administration. It was also demonstrated in the defibrillation sequence when the MD leader was in communication with Jo.
- **State of the union**: The MD leader used this technique to summarize the situation after members of the response team arrived and the anesthesiologist inquired about what was occurring. In addition, the MD leader included an ask from the team for additional input. Later in the case study, the MD leader again summarized a brief statement of current situation and what the plans were going forward.

- **Collateral communication**: There was an example of collateral communication between the RT and the anesthesiologist. Their conversation about the inability to secure the airway was important to the overall care of the patient. This needed to be shared with the MD leader. The MD leader demonstrated situational awareness in that he was aware that the anesthesiologist had not confirmed a secure airway and there was a discussion occurring at the head of the patient's bed. Theresa and the pharmacist also had a conversation, but the MD leader did not need to be involved as they were utilizing cognitive aids to solve their dilemma of dosing of the Epinephrine. If the medication had been needed, they would need to ask in closed loop format the dose required from the MD and then dose prepared before administration for verification by the leader.

Question
What other team roles were demonstrated in this case study?

Discussion
Other Team roles demonstrated in the case study:
- **Anesthesiologist**: Secured the airway through endotracheal tube placement in collaboration with the Respiratory Therapist.
- **Respiratory Therapist**: maintained the airway providing ventilation.
- **Bedside nurse**: Liz, the nurse caring for the patient, filled this role and appropriately remained in the room, and performed cardiac compressions.
- **Medication nurse**: Theresa filled this role and prepared and administered the epinephrine.
- **Pharmacist**: Assisted in preparation of medication and as a resource for doses of medication.
- **Circulating nurse**: Jo filled this role. She placed the patient on the backboard and prepared the patient for defibrillation. She also administered the electrical shock.
- **Scribe**: This role was filled also by Liz. She documented the situation by recording times of treatments, and medications that were administered throughout the code.
- **Bed manager**: The nursing supervisor facilitated obtaining a bed for the patient in a higher level of care to which the patient would be transferred following the resuscitation.

Question
What are some other examples of CRM other than communication demonstrated in the case study?

Discussion
Other examples of CRM within the case study:
- **Identification of a leader**: The MD leader assumed the role and stated out loud that he was assuming this role; he also communicated this with all staff responding to the emergency response call.
- **Role assignment**: Some team members began assuming tasks while others were directed to tasks. Liz started with compressions but was relieved of this role when more staff responded to the situation. The MD acknowledged that as an RN, Liz's talents may be better utilized elsewhere on the team. The MD leader assigned other less skilled members (medical students) to assist with the compressions. The RT and anesthesiologist fulfilled the task of maintaining the patient's airway as appropriate to their clinical skill set. The MD leader potentially reassigned airway management to the ICU MD as needed when he was aware of complications. Theresa also assigned roles by asking Jo to place a backboard under the patient and place defibrillator pads on the patient. Theresa also assigned the unit coordinator to guide the responding team members and asked the nursing assistant to call a code and monitor patient call lights. The pharmacist assumed a role at the code cart in preparation of medications.
- **Cognitive aids**: The MD leader was using an ACLS evidence-based algorithm card as a cognitive aid to guide his management of the situation and all interventions. The pharmacist and Theresa used an emergency medication guideline for dose verification.
- **Situational awareness**: The MD leader did not perform any tasks but maintained close observation of all activities taking place including the patient's status throughout. He used clear communication and noticed when the airway team was having an issue. He anticipated that there may be a need for another form of action, by asking the ICU MD if he was able to secure the airway if needed. The MD leader or the anesthesiologist could have become fixated on the failed intubation attempt but did not. The MD leader remained focused on the next timely steps by asking Liz if she was ready to administer epinephrine and the next 2-minute pulse check.

Conclusion

Crisis resource management is a concept that all healthcare providers should understand and know when and how to employ its elements during an emergency. This concept has been adapted and refined from other industries to provide a framework for effective and efficient management of crisis situations. Healthcare providers are often responders in medical emergencies and environmental disasters, and knowledge of CRM behaviors is vital for safe practice and efficient responses. Healthcare providers can serve as responders to an event as team members and team leaders. The ability to effectively communicate data, instructions, and delegation of tasks is a priority in ensuring minimal adverse outcomes and patient safety. The healthcare provider should understand the CRM components such as delegation, resource utilization, effective communication techniques, and the use of cognitive aids. They should be aware of the protocols, policies, and procedures for emergency responses in any care setting in which they work. Training and practice drills on how to respond to an emergency using the CRM framework helps prepare all care team members to respond to emergencies and maximize patient safety and outcomes.

References

- Abualenain, J. (2018). Hospital-wide interprofessional simulation-based training in crisis resource management. *Emergency Medicine*, *17*(3), 93-6.
- Al Harthi, M., Al Thobaity, A., Al Ahmari, W., & Almalki, M. (2020). Challenges for nurses in disaster management: A scoping review. *Risk management and healthcare policy*, 13, 2627.
- Alidina, S., Goldhaber-Fiebert, S. N., Hannenberg, A. A., Hepner, D. L., Singer, S. J., Neville, B. A., ... & Berry, W. R. (2018). Factors associated with the use of cognitive aids in operating room crises: A cross-sectional study of US hospitals and ambulatory surgical centers. *Implementation Science*, *13*(1), 50.
- Alsabri, M., Boudi, Z., Lauque, D., Roger, D. D., Whelan, J. S., Östlundh, L., ... & Bellou, A. (2020). Impact of teamwork and communication training interventions on safety culture and patient safety in emergency departments: A systematic review. *Journal of Patient Safety, 8*(1), e351-e361. https://doi.org/10.1097/PTS.0000000000000782
- Bracco, F., De Tonetti, G., Masini, M., Passarelli, M., Geretto, F., & Celleno, D. (2018). Crisis resource management in the delivery room: Development of behavioral markers for team performance in emergency simulation. *International journal of environmental research and public health*, *15*(3), 439.
- Brindley, P.G., & Cardinal, P. (2017). *Optimizing crisis resource management to improve patient safety and team performance: A handbook for all acute care health professionals.* Royal College of Physicians and Surgeons of Canada.
- Bolt, J., Semchuk, W., Loewen, P., Bell, A., & Strugari, C. (2015). A Canadian survey of pharmacist participation during cardiopulmonary resuscitation. *The Canadian journal of hospital pharmacy*, *68*(4), 290.
- Cammarano, C., Jiang, X., & Schnatz, P. F. (2016). Implementing Team-Based Care: It's Our Duty. *Healthcare Transformation*, *1*(4), 240-247.
- Corey, P. J. (2016). *The Effectiveness of Adult and Pediatric Code Blue Simulation-Based Team Trainings* (Doctoral dissertation, Walden University).
- Corey, P., & Canelli, R. (2018). Crisis Resource Management. In K.P. Lewis, R. J. Canelli, & R. A. Ortega (Ed.) *Ok to proceed: What every healthcare provider should know about patient safety*. (pp. 182-187). Kirkwood
- DeBoer, S., Seaver, M., & Broselow, J. (2005). Color coding to reduce errors: The Broselow–Luten system streamlines pediatric emergency treatment. *AJN The American Journal of Nursing*, *105*(8), 68-71.
- Edwards, W. (1962). Dynamic decision theory and probabilistic information processing. *Human Factor,s 4*, 59-73.
- El-Shafy, I. A., Delgado, J., Akerman, M., Bullaro, F., Christopherson, N. A., & Prince, J. M. (2018). Closed-loop communication improves task completion in pediatric trauma resuscitation. *Journal of surgical education*, *75*(1), 58-64.
- Fanning, R. M., Goldhaber-Fiebert, S. N., Undani, A. D., & Gaba, D. M. (2013). Crisis Resource Management. In A.I. Levine, S. DeMaria Jr., A. D. Schwartz, & A. J. Sim (Ed.) *The Comprehensive Textbook of Healthcare Simulation.* (pp.95-109). Springer Science & Business Media.
- Ferguson, K., Wilson, J., Gendron, B., Rio, M., Verbyla, S., & Vincent, W. (2019). 1359: Optimization of the pharmacist role for thrombolytic therapy in inpatient code stroke. *Critical Care Medicine,* 47(1), 656.

- Fioratou, E., Flin, R., & Gavin R. (2010). No simple fix for fixation errors: Cognitive processes and their clinical applications. *Anaesthesia, 65*(1), 61-9.
- Gaba, D. M., Howard, S. K., & Fish, K. J. (2001). Simulation-based training in anesthesia crisis resource management (ACRM): A decade of experience. *Simulation Gaming*. 32(2), 175-93.
- Gangaram, P., Menacho, A. M., & Alinier, G. (2017). Crisis resource management in relation to empowering people to speak up in emergency medical service clinical practice settings. *Journal of Paramedic Practice*, 9(2), 60-65.
- Goldhaber-Fiebert, S. N., & Howard, S. K. (2013). Implementing emergency manuals: Can cognitive aids help translate best practices for patient care during acute events? *Anesthesia & Analgesia*, *117*(5), 1149-1161.
- Goldhaber-Fiebert, S. N., Pollack, J., Howard, S. K., & Merrell, S. B. (2016). Emergency manual uses during actual critical events and changes in safety culture from the perspective of anesthesia residents: A pilot study. *Anesthesia & Analgesia, 123*(3), 641-9.
- Gonzalez, M., Lewis, K., & Lorrain, G. (2018). The Universal Protocol. In K.P. Lewis, R. J. Canelli, & R. A. Ortega (Ed.) *Ok to proceed: What every healthcare provider should know about patient safety.* (pp. 165-170). Kirkwood
- Hazinski, M. F., Nolan, J. P., Aickin, R., Bhanji, F., J. E., Callaway, C. W., ... & Gent, L. M. (2015). Part 1: executive summary: 2015 international consensus on cardiopulmonary resuscitation and emergency cardiovascular care science with treatment recommendations. *Circulation*, *132* (16 suppl 1), S2-S39.
- Helmreich, R. L. & Fousbee, C. H. (1993). Why crew resource management? Empirical and theoretical bases of human factors training in aviation. In E. L. Wiener, B. G. Kanki, R. L. & Helmreich (Ed.) *Cockpit resource management*, (pp.1-41). Academic Press.
- Hunt, E.A., Shilkofski, N.A., Stavroudis, T.A., & Nelson, K.L. (2007.) Simulation: translation to improved team performance. *Anesthesiology Clinics,* 25(2), 301-319.
- Jackson, S. A. (2017). Rapid response teams: What's the latest? *Nursing 2018*, *47*(12), 34-41.
- Kohn, L. T., Corrigan, J. M., & Donaldson, M. S. (2000). *To err is human: Building a safer health system.* A report of the Committee on Quality of Health Care in America, Institute of Medicine.
- Leonard, M., Graham, S., & Bonacum, D. (2004). The human factor: The critical importance of effective teamwork and communication in providing safe care. *BMJ Quality & Safety*, *13*(suppl 1), i85-i90.
- Merchant, R. M., Topjian, A. A., Panchal, A. R., Cheng, A., Aziz, K., Berg, K. M., ... & Adult Basic and Advanced Life Support, Pediatric Basic and Advanced Life Support, Neonatal Life Support, Resuscitation Education Science, and Systems of Care Writing Groups. (2020). Part 1: Executive summary: 2020 American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care. *Circulation*, *142*(16_Suppl_2), S337-S357.
- Miller, R. D., Eriksson, L. I., Fleisher, L. A., Wiener-Kronish, J. P., Cohen, N. H., & Young, W. L. (2014). *Miller's Anesthesia E-Book*. Elsevier Health Sciences.
- Mo, D., O'Hara, N. N., Hengel, R., Cheong, A. R., & Singhal, A. (2018). The Preferred Attributes of a Trauma Team Leader: Evidence from a Discrete Choice Experiment. *Journal of surgical education, 76*(1), 120-126. https://doi.org/10.1016/j.jsurg.2018.06.021
- Moffatt-Bruce, S. D., Hefner, J. L., Mekhjian, H., McAlearney, J. S., Latimer, T., Ellison, C., & McAlearney, A. S. (2017). What is the return on investment for implementation of a crew resource management program at an academic medical center? *American Journal of Medical Quality, 32*(1), 5-11.
- Ortega, R. (2018). Fixation Errors. In K.P. Lewis, R. J. Canelli, & R. A. Ortega (Ed.) *Ok to Proceed: What every healthcare provider should know about patient safety.* (pp. 64-68). Kirkwood
- Ozekcin, L. R., Tuite, P., Willner, K., & Hravnak, M. (2015). Simulation education: Early identification of patient physiologic deterioration by acute care nurses. *Clinical Nurse Specialist*, *29*(3), 166-173.
- Parsons, J. R., Crichlow, A., Ponnuru, S., Shewokis, P. A., Goswami, V., & Griswold, S. (2018). Filling the gap: Simulation-based crisis resource management training for emergency medicine residents. *Western Journal of Emergency Medicine*, *19*(1), 205.
- Salas, E, Dickinson, T. L., Comverse, S., & Tannenbaum, S. I. (1992). Toward an understanding of team performance and training. In K.W. Swezey and E. Salas (Eds.). *Teams: Their training and performance.* (3-29). Ablex.
- Salas, E., Prince, C., Baker, D. P., & Shrestha, L. (2017). Situation awareness in team performance: Implications for measurement and training. In *Situational Awareness* (pp. 63-76). Routledge.
- Siems, A., Cartron, A., Watson, A., McCarter, R., & Levin, A. (2017). Improving pediatric rapid response team performance through crew resource management training of team leaders. *Hospital pediatrics, 7*(2).
- Simon, E. L., Truss, K., Smalley, C. M., Mo, K., Mangira, C., Krizo, J., & Fertel, B. S. (2021). Improved hospital mortality rates after the implementation of emergency department sepsis teams. *The American Journal of Emergency Medicine, 51*, 218-222. https://doi.orghttps://doi.org/10.1016/j.ajem.2021.10.035
- Statewide Anaesthesia and Perioperative Care Clinical Network (SWAPNet). (2018). Rural perioperative team training: Teamwork and crisis resource management principles. State of Queensland (Queensland Health). Brisbane, QLD. https://clinicalexcellence.qld.gov.au/.
- Van, K. A., Nogueira, L., Gustafson, D., Tieu, W., Averch, T. D., & Kim, F. J. (2017). The Culture of Patient Safety Practice: Systematic Review. *Urology practice, 4*(4), 296-301.

CRISIS RESOURCE MANAGEMENT FOR HEALTHCARE PROFESSIONALS

Self-Assessment Answers and Rationales

1. The correct answer is C.
Rationale: Most aviation disasters were related to human error in communication, situation awareness, delegation, and managing workload.

2. The correct answer is A.
Rationale: Role clarity is necessary to organize the team and minimize chaos.

3. The correct answer is C.
Rationale: The leader's only responsibility should be leading the situation; when the leader's attention is divided, crucial details can be missed.

4. The correct answer is B.
Rationale: Many institutions have multiple levels of assistance available and calling for the most appropriate level of help at the right time leads to the best patient outcomes.

5. The correct answer is C.
Rationale: Stop the line allows all responders to have opportunities to alert the team to issues and pause actions for clarification.

6. The correct answer is D.
Rationale: Responders involved in discussions during an emergency need to assess the importance of their conversation. They should only share information that is relevant for the leader to be aware of and that can impact the situation and eventual outcome.

7. The correct answer is D.
Rationale: Resource allocation is the knowledge of resources available in an emergent event and the internal protocols, such as internal responses to a fire and how to use the equipment.

8. The correct answer is B.
Rationale: Dynamic decision-making is a process where an individual makes informed decisions based on an awareness of the situation, implementing the resources available and supported in knowledge by cognitive aids.

9. The correct answer is A.
Rationale: The "Where do I Stand" is an institutional internal cognitive aid that assists cardiac event responders in knowing where they should stand so that the leader is aware of their role and discipline.

10. The correct answer is A.
Rationale: The thought that the issue causing the situation can only be attributed to one specific cause and no other cause is explored, potentially causing delay in interventions.

Course Code: ANCCNC03CR

Cultural Humility for Healthcare Professionals

3 Contact Hours

Release Date: October 27, 2021

Expiration Date: October 27, 2024

Faculty

Adrianne E. Avillion, D.Ed, RN, is an accomplished nursing professional development specialist and healthcare author. She earned a doctoral degree in adult education and an MS in nursing from Penn State University, and a BSN from Bloomsburg University. Dr. Avillion has held a variety of nursing positions as a staff nurse in critical care, physical medicine, and rehabilitation settings, as well as numerous leadership roles in professional development. She has published extensively and is a frequent presenter at conferences and conventions devoted to the specialty of continuing education and nursing professional development. Dr. Avillion owns and is the CEO of Strategic Nursing Professional Development, a business that specializes in continuing education for healthcare professionals and consulting services in nursing professional development.

Adrianne E. Avillion has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Content Reviewer: Mary C. Ross, PhD, RN, is an experienced nursing educator with extensive clinical experience in multiple areas of nursing including community and mental health. She is a retired Air Force flight nurse and previous chair of a national Veterans Administration advisory council. She has extensive experience living and working in foreign countries and with diverse patient populations.

Mary Ross has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Course overview

The purpose of this education program is to present an introduction to cultural humility and offers tools for healthcare professionals to use when working with diverse patients in a culturally humble manner.

Learning objectives

Upon completion of this course, the learner should be able to:

- Define cultural humility.
- Describe dimensions of diversity in the United States.
- Identify factors that can interfere in the healthcare professional/patient relationship with patients of diverse cultural backgrounds.
- Explain cultural humility from the perspectives of oppression, privilege, and marginalization.
- Describe the process of providing patient care with cultural humility.
- Differentiate between multicultural competency and cultural humility.

How to receive credit

- Read the entire course online or in print which requires a 3-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal information and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion.

CE Broker reporting

Colibri Healthcare, LLC, provider # 50-4007, reports course completion results within 1 business day to CE Broker. If you are licensed in Arkansas, District of Columbia, Florida, Georgia, Kentucky, Michigan, Mississippi, New Mexico, North Dakota, South Carolina, or West Virginia, your successful completion results will be automatically reported for you.

Accreditations and approvals

Colibri Healthcare, LLC is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

Individual state nursing approvals

Colibri Healthcare, LLC is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation. In addition to states that accept courses offered by ANCC accredited Providers, Colibri Healthcare, LLC is an approved Provider of continuing education in nursing by: Alabama Board of Nursing, Provider #ABNP1418 (valid through February 5, 2025); Arkansas State Board of Nursing, Provider #50-4007; California Board of Registered Nursing, Provider #CEP17480 (valid through January 31, 2024); California Board of Vocational Nursing and Psychiatric Technicians (LVN Provider # V15058, PT Provider #V15020; valid through December 31, 2023); District of Columbia Board of Nursing, Provider #50-4007; Florida Board of Nursing, Provider #50-4007; Georgia Board of Nursing, Provider #50-4007; Kentucky Board of Nursing, Provider #7-0076 (valid through December 31, 2023; CE Broker provider #50-4007). Michigan Board of Nursing, Provider #50-4007; Mississippi Board of Nursing, Provider #50-4007; New Mexico Board of Nursing, Provider #50-4007; North Dakota Board of Nursing, Provider #50-4007; South Carolina Board of Nursing, Provider #50-4007; and West Virginia Board of Registered Nurses, Provider #50-4007. This CE program satisfies the Massachusetts States Board's regulatory requirements as defined in 244 CMR5.00: Continuing Education.

Activity director

Shirley Aycock, DNP, RN, Executive Director of Quality and Accreditation

Disclosures

Resolution of conflict of interest
In accordance with the ANCC Standards for Commercial Support for continuing education, Colibri Healthcare, LLC implemented mechanisms prior to the planning and implementation of the continuing education activity, to identify and resolve conflicts of interest for all individuals in a position to control content of the course activity.

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The information provided in this activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient's medical condition.

Course verification

All individuals involved have disclosed that they have no significant financial or other conflicts of interest pertaining to this course. Likewise, and in compliance with California Assembly Bill No. 241, every reasonable effort has been made to ensure that the content in this course is balanced and unbiased.

DEFINITION OF CULTURAL HUMILITY

In the context of healthcare services cultural humility is defined as "a process of being aware of how people's culture can impact their health behaviors and, in turn, using this awareness to cultivate sensitive approaches in treating patients" (Prasad et al., 2016). In contrast, cultural competency is described as ensuring that healthcare professionals learn a quantifiable set of attitudes that allow them to work effectively within the cultural context of each patient. There is an end point to cultural competency. It ends with the termination of the healthcare professional-patient relationship. On the other hand, cultural humility is an ongoing process, which requires continual self-reflection and self-critique. Cultural humility is a prerequisite to cultural competency. It forms a basis for effective, harmonious healthcare professional-patient relationships (Prasad, 2016).

Cultural humility involves entering into a professional relationship with a patient by honoring the patient's beliefs, customs, and values. Cultural competency is described as a skill that can be taught, trained, and achieved. This approach is based on the concept that the greater the knowledge a healthcare professional has about another culture, the greater the competence in practice. Cultural humility de-emphasizes cultural knowledge and competency and focuses on lifelong nurturing of self-reflection and self-critique, promotion of interpersonal sensitivity, addressing power imbalances, and promoting the appreciation of intracultural variation and individuality (Stubbe, 2020). This humility exemplifies respect for human dignity.

An important part of cultural humility is identifying one's own biases, self-understanding, and interpersonal sensitivity. It is important that healthcare professionals nurture an appreciation for the many facets of each patient, including culture, gender, race, ethnicity, religion, sexual identity, and lifestyle. According to Yancu (2017), healthcare professionals need both process (cultural humility) and product (cultural competence) to effectively provide care and interact with a culturally diverse society.

Healthcare Professional Consideration: A culturally humble healthcare professional needs to be able to provide services that transcend culture, ability, LGBTQ status, and class, as well as integrate healthcare professional-stated cultural and other considerations into treatment. Moreover, the healthcare professional must recognize the roles that power, privilege, and oppression play in both the counseling relationship and the experiences of patients (Sue & Sue, 2021).

Self-Assessment Quiz Question #1

Which of the following statements pertains to the definition of cultural humility?

a. Healthcare professionals must learn a quantifiable set of attitudes.
b. Cultural humility is an ongoing process.
c. Cultural humility is a skill that can be taught.
d. Healthcare professionals know that there is an end point to cultural humility.

DIMENSIONS OF DIVERSITY IN THE UNITED STATES

Definitions

Diversity is a multidimensional concept that refers to many aspects of an individual that combine to comprise an overall sense of self. Moreover, diversity occurs within a cultural and social context where variances within the general population are treated differentially based on the social, political, and cultural constructs existing within a society. Some dimensions of diversity include race, socioeconomic class, gender, sexual orientation (i.e., identifying as lesbian, gay, bisexual, queer/questioning [LGBQ]), gender identification (i.e., identifying as transgender), and disability. Although this is not an exhaustive list of all elements of individual diversity, it does address many prominent dimensions of diversity an individual may have as well as determine where that individual falls within the societal hierarchy. Dimensions of diversity also serve to privilege and empower some members of society while oppressing and marginalizing other members of society (Sue & Sue, 2021).

Intersectionality is a concept that is used to describe how these various dimensions come together to privilege or oppress individuals and groups of individuals. Intersectionality is defined as "multiple, intersecting identities and ascribed social positions (e.g., race, gender, sexual identity, class) along with associated power dynamics, as people are at the same time members of many different social groups and have unique experiences with privilege and disadvantage because of those intersections" (Rosenthal, 2016, p. 475).

Each individual has a multitude of diverse identities; some are visible and some are not readily identifiable. Each of the identities intersects with the other identities. The multiple intersections can serve to provide for further oppression and marginalization or further power and privilege, and/or they could mitigate one another, providing some facets of privilege and others of oppression. For example, an African American college professor who is a heterosexual woman with a doctoral degree is often oppressed and marginalized because of her race and gender; however, as a highly educated academic who is not gay, she experiences power and privilege, particularly in the academic classroom setting as the course professor. Another example is a female student who has experienced poverty on and off throughout her life cycle and identifies as biracial and gay; she may experience multiple identities that compound her oppression and marginalization (i.e., female, poor, gay, biracial). The concept of intersectionality provides a useful framework for healthcare professionals, as it helps them to understand the complexity of patients' diverse identities. Further, it provides a structure for understanding the multitude of factors that may cause a patient to be oppressed and/or privileged within the context of American society. In this same manner, it is important to recognize that culture is best described as fluid and subjective, as will be discussed in greater detail with respect to providing patient care with cultural humility.

Race, ethnicity, and immigration

The United States (US) is a nation of immigrants. The racial, ethnic, and immigrant diversity within American society is often cited as one of its greatest strengths. However, it has also been a challenge for America and for Americans in terms of fully accepting and embracing the broad array of immigrant groups that have become American. Historically, every new immigrant group has experienced various degrees of prejudicial and discriminatory treatment and exclusion from mainstream society. However, the experience of many European (e.g., Irish, Italian, German) immigrants was one of initial discrimination followed by swift acculturation and assimilation, likely aided by the physical appearance and language similarities to those of earlier settlers. Asian and Latina/o immigrants have experienced prejudicial treatment, possibly because of readily identifiable physical and language differences. Historical evidence of mistreatment is well documented, with perhaps one of the most egregious examples being the internment of Japanese Americans during World War II (Nagata et al., 2015).

Although Americans often think of the journey of voluntary immigration of the many ethnic groups that come to America to build a "better" life, the legacy of the forced immigration of African American slaves is often overlooked. African Americans endured 250 years of enslavement followed by 60 years of a status of "separate but equal" as well as continuing racist practices in education, housing, health, and criminal justice system. The systemic and continuous oppression of African Americans is a direct legacy of this forced immigration and has resulted in enduring educational, health, and wealth disparities (Bunch, 2016).

"New" immigrants from Afghanistan, Haiti, and other war-torn or environmentally impacted countries are experiencing prejudicial treatment in society and healthcare. The economic and social burden
of caring for these immigrants, in addition to the typical flow of immigrant populations, has aroused discriminatory attitudes in society and even in healthcare professionals that may already be stressed by COVID patient care.

Healthcare professionals' understanding of the differential treatment of current and past immigrant groups based upon ethnic, racial, religious, and linguistic background is paramount to their understanding of their patients. The way in which individuals and groups are treated from a sociopolitical (macro) level and from a daily individual interactional level (micro) necessarily affects their views and understanding of the world in which they live. From a person in environment perspective, individuals act upon the environment and the environment acts and reacts to the individual. Thus, while individuals help shape the environment around them, the environment also shapes the individual (Hutchison, 2021).

A demographic breakdown of the diversity in the US is provided in Tables 1 and 2. This breakdown may help healthcare professionals better conceptualize the potential diversity of experiences among their patients.

Demographics

The US has more immigrants than any other country in the world. Currently, more than 40 million people living in the US were born in another country. This figure represents one-fifth of the world's immigrants. Nearly every country in the world is represented among US immigrants (Pew Research Center, 2020b).

In 2018, there were a record 44.8 million immigrants living in the US. This figure represents 13.7% of the nation's population. Since 1965, the number of immigrants living in the US has more than quadrupled. Since 1970, the number of immigrants has nearly tripled (Pew Research Center, 2020a). Table 1 provides a breakdown of the US foreign-born population by national origin.

Table 1: Foreign-Born Population by Place of Birth 2018

Region	Number of People	Percentage
Mexico	11,182,111	25%
East and Southeast Asia	8,648,525	19.3%
Europe	4,848,270	10.8%
Caribbean	4,463,891	10%
South America	3,304,380	7.4%
Central America	3,590,330	8%
South Asia	3,668	8.2%
Sub-Saharan Africa	2,032,470	4.5%
Middle East-North Africa	1,784,898	4%
Canada and Other North America	827,093	1.8%
Oceania	246,371	0.6%
Central Asia	131,854	0.3%
Total	44,760,622	100%

(Based on data from the Pew Research Center [2020a]).

Tables 2-4 provides a breakdown of the US population by race.

Evidence-based practice! Data show that the population varies significantly by place of birth and race. Healthcare professionals must be aware of the populations they serve to practice cultural humility.

Table 2: Population by Race Self-Identification 2018		
Race	Number of People	Percentage
White	236,102,692	72.2%
Black or African American	41,683,829	12.7%
Asian	18,449,856	5.6%
Some Other Race	16,273,008	5%
Two or More Races	11,224,731	3.4%
Native American Indian and Alaska Native	2,826,336	0.9%
Native Hawaiian and other Pacific Islander	606,987	0.2%
(Pew Research Center, 2020a)		

Table 3: Population by Race Self-Identification US Born		
Race	Number of People	Percentage
White	215,726,882	76.4%
Black or African American	37,413,425	13.2%
Two or More Races	10,169,825	3.6%
Some Other Race	9,655,701	3.4%
Asian	2,627,659	2.2%
Native American Indian and Alaska Native	2,627,659	0.9%
Native Hawaiian and other Pacific Islander	460,543	0.2%
(Pew Research Center, 2020a)		

Table 4: Population by Race Self-Identification Foreign Born		
Race	Number of People	Percentage
White	20,375,810	45.5%
Asian	12,097,155	27%
Some Other Race	6,617,226	14.8%
Black or African American	4,270,404	9.5%
Native American Indian and Alaska Native	198,677	0.4%
Native Hawaiian and Other Pacific Islander	146,444	0.3%
Two or More Races	460,543	0.2%
(Pew Research Center, 2020a)		

Self-Assessment Quiz Question #2

In 2018, from which country/region did the highest number of foreign-born people residing in the US come from by place of birth?

a. South America.
b. East and Southeast Asia.
c. Mexico.
d. Sub-Saharan Africa.

Healthcare professionals must be careful not to make sweeping generalizations regarding characteristics or needs of any population. Further, patients are influenced by a variety of factors including level of acculturation (to be discussed later), immigration experience, experiences with discrimination, and ability to speak English. Therefore, it is imperative for healthcare professionals to ask patients about their personal experiences and important events in their lives. Some cultural generalizations may help clinicians increase their knowledge of specific cultures and enhance their understanding of a portion of patients' differing experiences. However, this is not intended to shift the healthcare professionals focus away from developing a better understanding of the dynamics of race, immigration, and other facets of diversity within the current social, economic, and political environment of the United States. Healthcare professionals are better prepared to both understand and help their patients if they are able to understand the cultural climate in which their diverse patients live and that climate's role in accommodating or marginalizing them. Moreover, healthcare professionals will provide better care for their patients if they develop a better understanding of how they personally are accommodated and marginalized by American culture. Race, ethnicity, and immigration status are only a few of the facets of diversity that affect patients. Other facets of diversity include socioeconomic status, disability, sexual orientation, religion, and gender identification. These facets of diversity can serve as dimensions that marginalize and/or oppress patients as well.

Poverty

Poverty is often a consequence of immigrants who have fled war zones, disaster areas, and regions of extreme high unemployment. The official poverty rate in 2020 was 11.4%, up 1% from 2019. This is the first increase in poverty after five consecutive annual declines. In 2020, there were 37.2 million people in poverty, about 3.3 million more than in 2019 (U.S. Census Bureau, 2020).

Evidence-based practice! Research shows that the poverty rate in the US is increasing. Healthcare professionals must be aware of data relating to poverty and work to decrease the growing problem of poverty.

Key points of the 2020 income and poverty in the US include the following (U.S. Census Bureau, 2020):

- Between 2019 and 2020, the poverty rate increased for non-Hispanic Whites and Hispanics. Among non-Hispanic Whites, 8.2% were in poverty in 2020, while Hispanics had a poverty rate of 17.0%. Among the major racial groups examined in this report, Blacks had the highest poverty rate (19.5%) but did not

experience a significant change from 2019. The poverty rate for Asians (8.1%) in 2020 was not statistically different from 2019.
- Poverty rates for people under the age of 18 increased from 14.4% in 2019 to 16.1% in 2020. Poverty rates also increased for people aged 18 to 64 from 9.4% in 2019 to 10.4% in 2020. The poverty rate for people aged 65 and older was 9.0% in 2020, not statistically different from 2019.
- Between 2019 and 2020, poverty rates increased for married-couple families and families with a female householder. The poverty rate for married-couple families increased from 4.0% in 2019 to 4.7% in 2020. For families with a female householder, the poverty rate increased from 22.2% to 23.4%. The poverty rate for families with a male householder was 11.4% in 2020, not statistically different from 2019.

Income data from this report include the following information (U.S. Census Bureau, 2020):
- Median household income was $67,521 in 2020, a decrease of 2.9% from the 2019 median of $69,560. This is the first statistically significant decline in median household income since 2011.
- The 2020 real median incomes of family households and nonfamily households decreased 3.2% and 3.1% from their respective 2019 estimates.
- The 2020 real median household incomes of non-Hispanic Whites, Asians, and Hispanics decreased from their 2019 medians, while the changes for Black households were not statistically different.
- In 2020, real median household incomes decreased 3.2% in the Midwest and 2.3% in the South and the West from their 2019 medians. The change for the Northeast was not statistically significant.

Women in Poverty
More women than men are living in poverty in the US. Men who have migrated for employment or to avoid conscripted military work often have left women behind. Migrating across hundreds of miles and difficult terrain is not feasible for women and children. Basic information about women in poverty includes the following (Bleiweis et al., 2020):
- Of the 38.1 million people living in poverty in 2018, 56%, or 21.4 million, were women.
- Nearly 10 million women live in deep poverty defined as falling below 50% of the federal poverty line.
- The highest rates of poverty are experienced by Native American Indian or Alaska Native (AIAN) women, Black women, and Latinas. About one in four AIAN women live in poverty. This is the highest rate of poverty among women or men of any racial or ethnic group.
- Unmarried mothers have higher rates of poverty then married women, with or without children, and unmarried women without children. Nearly 25% of unmarried mothers live below the poverty line.
- In 2018, 11.9 million children under the age of 18 lived in poverty. This accounts for 31.1% of those living in poverty.
- Poverty rates for women and men are almost even throughout childhood. However, the gap grows significantly for women ages 18 to 44 (during prime childbearing years) and again for women age 75 and older.
- Women with disabilities are more likely to live in poverty than both men with disabilities and persons without disabilities. Women with disabilities have a poverty rate of 22.9%, compared to 17.9% for men with disabilities and 11.4% for women without disabilities.
- LGBTQ women experience higher rates of poverty than cisgender (sense of personal identity and gender correspond with their birth sex) straight women and men because of the intersections of discrimination based on gender, sexual orientation, and gender identity or expression.

Reasons why women live in poverty

The impact of sexism and racism on society limit the employment opportunities available to women. Some of the causes of poverty in women include the following issues.

Wage Gap
Based on 2018 data, women working full-time, year-round earn on average 82 cents for every dollar earned by their male counterparts. This gap continues throughout the lifespan, leaving women with fewer resources and savings than men (Bleiweis et al., 2020).

Occupational Segregation into Low-Paying Jobs
Women are disproportionately represented in certain occupations, especially low-paying jobs. This is due, in part, to the perception of gender roles that assume women's work is low skilled and undervalued. This is especially true for women of color (Bleiweis et al., 2020).

Lack of Work-Family Policies
Issues such as insufficient paid family and medical leave and earned paid sick leave impact a woman's ability to manage work and caregiving. Childcare is expensive and sometimes hard to access. These issues further compound problems associated with work-family challenges. The coronavirus has exacerbated the caregiving burden on women because of essential school and childcare provider closures, which contributes to higher job loss among women (Bleiweis et al., 2020).

Disability
Disability may cause, as well as be a consequence of; poverty. People with disabilities must deal with barriers to employment as well as lower earnings. Only 16.4% of women who have disabilities were employed in 2018, compared with 60.2% without a disability (Bleiweis et al., 2020).

Domestic Violence
In the US, domestic violence is the cause of women's losing an average of eight million days of paid work per year. The Violence Against Women Act (VAWA) has led to lowered rates of gender-based violence in the US thanks to its programs and services. Unfortunately, the programs and services of the VAWA are not able to meet ongoing needs of domestic violence survivors without more funding and expansion of resources (Bleiweis et al., 2020).

Self-Assessment Quiz Question #3

Which of the following persons is most likely to live in poverty?

a. A woman who self-identifies as Alaska Native.
b. A man who is 45 years of age.
c. A married man with two children.
d. An unmarried woman without children.

Disability

Physical, intellectual, mental health, and other long-term disabilities constitute another facet of diversity within the United States. According to the Centers for Disease Control and Prevention (CDC; 2020), 61 million adults (26% of adults) in the US live with a disability.

According to the Equal Employment Opportunity Commission's (EEOC; 2021) Enforcement and Litigation Statistics and Agency Financial Report for Fiscal Year (FY) 2020, retaliation was the most frequently alleged discriminatory claim, accounting for 55.8% of all charges. Disability (36.1%) was the next most alleged category of discrimination, followed by race and sex. The percentage of each category decreased or remained stable compared to FY 2019 except for claims of retaliation, disability, color, and genetic information (EEOC, 2021).

Table 5 shows the percentage of adults with specific categories of disability in the US.

Table 5: Percentage of Adults with Functional Disability Types in the US		
Functional Disability	Description	Percentage
Mobility	Serious difficulty walking or climbing stairs.	13.7%.
Cognition	Serious difficulty concentrating, remembering, or making decisions.	10.8%.
Independent Living	Difficulty doing errands alone.	6.8%.
Hearing	Deafness or serious difficulty hearing.	5.9%.
Vision	Blindness or serious difficulty seeing.	4.6%.
Self-Care	Difficulty bathing or dressing.	3.7%.
(CDC, 2020)		

The CDC (2020) points out that:

- Two in five adults age 65 years of age and older have a disability.
- One in four women have a disability.
- Two in five non-Hispanic, Native American Indians/Alaska Natives have a disability.

Evidence-based practice! Research shows that adults living with disabilities are more likely to smoke, have obesity, have heart disease, and/or diabetes (CDC, 2020). Healthcare professionals must be alert to the diseases linked to disability. These diseases can compound the challenges that people with disabilities face.

People with disabilities face several barriers to accessing healthcare. These include the following (CDC, 2020):

- One in three persons does not have a primary healthcare provider. (Age group: 18-44 years.)
- One in three people has an unmet healthcare need because of cost in the past year. (Age group: 18-44 years.)
- One in four people did not have a routine check-up in the past year. (Age group: 45-64 years.)

Disability often compounds issues of poverty and access that can lead to an array of health consequences such as substance abuse, domestic violence, malnutrition, and even chronic mental health conditions.

Lesbian, gay, bisexual, transgender, queer/questioning population (LGBTQ)

The LGBTQ population is another historically oppressed group in the US. Until the 2015 Supreme Court decision legalizing same-sex marriage, LGBTQ individuals were not able to marry in most states.

There are more than 5.5 million LGBTQ individuals living in the US. The LGBT community face barriers to fair and equal access to employment, housing, healthcare, and public accommodation. There are several nondiscrimination laws on federal, state, and local levels that protect people from discrimination based on such factors as age, sex, and national origin. However, until 2020, federal law did not protect individuals from discrimination based on sexual orientation or gender identity (Roebig, 2020).

The Center for American Progress conducted a national public opinion study on the state of the LGBTQ community in 2020. The survey included interviews with 1,528 self-identified LGBTQ adults ages
18 and older. The project was funded and operated by the National Opinion Research Center (NORC) at the University of Chicago (Gruberg et al., 2020).

Major findings from the survey include the following (Gruberg et al., 2020):

- More than one in three LGBTQ Americans faced discrimination of some kind in the past year.
- More than three in five transgender Americans faced discrimination of some kind in the past year.
- Discrimination adversely impacted the mental and economic well-being of many LGBTQ Americans, including one in two participants who reported moderate or significant negative psychological impacts.
- More than half of LGBTQ Americans reported hiding a personal relationship to avoid experiencing discrimination.
- An estimated 3 in 10 LGBT Americans faced difficulties accessing necessary medical care because of cost issues.
- Fifteen percent of LGBTQ Americans reported postponing or avoiding medical treatment because of discrimination.
- Transgender individuals faced unique obstacles to accessing healthcare, including one in three who had to teach their physicians about transgender people.
- LGBTQ Americans may have also experienced significant mental health issues that are related to the COVID-19 pandemic.

Self-Assessment Quiz Question #4

All the following statements are accurate EXCEPT:

a. In the US 61 million adults live with a disability.
b. The type of functional disability that has the highest percentage is that of cognition.
c. More than half of LGBTQ Americans report hiding a personal relationship.
d. Transgender individuals face unique obstacles to accessing healthcare.

The complexity of individual diversity is inclusive of not just of racial and ethnic identity but also of variables such as socioeconomic class, disability, and LGBTQ status. While these facets of diversity are not exhaustive, they do represent some important categories of diversity. Healthcare professionals must consider the unique array of diverse identities that are represented within each individual encountered in each therapeutic relationship. The complexity embodied within each patient affects the way that the patient understands and views the healthcare professional and the professional relationship, just as the complexity of the healthcare provider's diversity dimensions affects the way that the healthcare professional understands and views each patient. It is impossible to provide information that allows healthcare professionals to gain knowledge about categories of people and how they behave or view the world, because not only is the variation within individual ethnicities and races endless, but the variation within each individual also is endless. Instead, healthcare professionals should aim to understand the societal landscape that privileges and oppresses individuals. The experiences of oppression experienced by various diverse groups are likely to provide them with a unique perspective on both the larger society and on the relationship with healthcare professionals.

OPPRESSION, PRIVILEGE, AND MARGINALIZATION

Understanding the concepts of oppression, privilege, and marginalization is essential for practicing with cultural humility. There are various aspects of individual identities that oppress or privilege people and their marginalization or empowerment.

Oppression can be defined as "unjust or cruel exercise of authority or power" (Merriam-Webster, 2021). A person or group that knowingly or unknowingly abuses a specific group. Oppression is a pervasive system. It has its foundation in history and is maintained via individual and institutional systematic discrimination, personal bias, bigotry, and social prejudice. Oppression leads to a condition of privilege for the person or the group that is the oppressor(s). National Conference for Community and Justice (NCCJ; 2021).

Privilege is a central concept within the healthcare professions. The concept of White privilege and male privilege was clearly articulated and widely disseminated through McIntosh's work in the 1980s. McIntosh articulated White male privilege as "an invisible package of unearned assets which he can count on cashing in each day, but about which he was 'meant' to remain oblivious. White privilege is like an invisible weightless knapsack of special provisions, assurance, tools, maps, guides, codebooks, passports, visas, clothes, compass, emergency gear, and blank checks" (McIntosh, 1998, p. 1). Privileging is "a process where chances or odds of being offered an opportunity are altered or skewed to the advantage of members of certain groups" (Minarik, 2017, p. 55). Essentially, privilege functions by providing some groups of individuals (e.g., White, male, heterosexual, abled, middle class) with preferred treatment in the form of special opportunities and advantages, while withholding that preference from other individuals (e.g., African American, female, LGBTQ, disabled). Privilege can include many advantages including being given the benefit of the doubt and feeling a sense of belongingness (Minarik, 2017). Individuals who are not privileged experience the opposite – such as being an automatic suspect or having to prove belonging (Minarik, 2017). Privilege is not a guarantee of success for those groups who receive it; however, it is an advantage that other groups do not receive and allows for opportunities that others are denied (Minarik, 2017). A final key aspect regarding privilege is that it is not necessarily visible to those who receive it. The invisibility of privilege is the key component that allows it to continue. More simply, when those who receive privilege do not recognize it, they are unable to take actions to change it. Once people become aware of privilege, they choose to use the benefits of privilege to advocate for marginalized populations.

Self-Assessment Quiz Question #5

When discussing oppression and privilege, healthcare professionals should know that:

a. Privilege is the commission of an unjust or cruel exercise of authority or power.
b. Privilege is a guarantee of success for groups receiving it.
c. Oppression's foundation is in the "me too" movement.
d. Oppression leads to a condition of privilege for the person or the group that is the oppressor(s).

Marginalization is an important concept in the delivery of patient care. Marginalization is the "act of placing a person or group in positions of lesser importance, influence, or power" (Dictionary.com., 2021). Examples of groups that have been, and are being, marginalized include ethnic and racial minorities, immigrants, the LGBTQ population, persons who are disabled, and the economically disadvantaged.

Some experts have identified the following three themes of marginalization (Baah et al., 2019):

1. Creation of Margins: Margins act as barriers and connections between a person and the environment. Margins construct physical, emotional, and psychological boundaries that people experience during interactions with society. Enforcement and maintenance of boundaries divide the political and socioeconomic resources in an uneven fashion. This also facilitates the unbalanced distribution of critical resources such as healthcare (Baah et al., 2019). This illustrates the concept of social determinants of health (SDH), which is defined as "the circumstances in which people are born, live, work and age and the systems put in place to deal with illness" (World Health Organization [WHO], 2010).
2. Living between Cultures: Living between cultures is another factor that links marginalization to SDH. Although the boundary or margin separates the dominant and peripheralized group, incomplete integration leads to a person or group that lives between cultures. Incomplete integration creates a situation where a person or group relinquishes characteristics of the marginalized group in order to bond with the dominant society, but is unable to do so. Examples of living between cultures are the ways of life of most immigrants, migrant farm workers, and other vulnerable groups. People living between cultures tend to live in areas characterized by limited employment and educational opportunities (Baah et al., 2019).
3. Creation of Vulnerabilities: Creation of vulnerabilities are created by the cumulative impact of the creation margins and living between cultures. Vulnerability is defined as a state of being exposed to and unprotected from health-damaging environments (Baah et al., 2019.

Marginalized groups often do not receive the same access to societal resources such as high-quality education, healthcare, housing, or equal access to voting as those groups that are not marginalized. The marginalization of oppressed groups prevents them from having a voice and helps to sustain the status quo in the United States in which White, economically well-off, and able-bodied individuals control access to social, economic, and political power.

Healthcare Professional Consideration: Healthcare professionals should recognize the power imbalances that result from oppression, privilege, and marginalization and work to correct the imbalances within the delivery of healthcare services and within the broader institutional and societal context.

Self-Assessment Quiz Question #6

When discussing themes related to marginalization, the concept of being exposed to and unprotected from health-damaging environments is referred to as:

a. Creation of margins.
b. Living between cultures.
c. Vulnerability.
d. Boundaries.

The concept of cultural humility was first discussed in the medical world to better understand and address health inequities and disparities (Tervalon & Murray-García, 1998). The concept has evolved to include ideas related to the creation of a broader and more inclusive society. Unlike the concepts of cultural competency and multicultural competency, which focus on gaining knowledge about cultural groups differing from the individual's own with the hopes of better understanding those cultures and thus better meeting the needs of different groups who enter counseling, cultural humility focuses on the cultural context within America that marginalizes and oppresses some groups of people, while privileging and empowering other groups of people (Foronda et al., 2016).

Attending to diversity

Critical Thinking Exercise

Trinh, a 17-year-old first-generation American of Hmong decent, is graduating first in her high school class. Her school counselor has encouraged her to apply to top-level colleges, several of which are hours from home. When Trinh asks about some nearby colleges, the counselor simply tells her that they are "well below her abilities," even though one is highly regarded. She is accepted by the top-level colleges to which she applied, including two Ivy League schools. Despite generous financial aid packages, Trinh does not accept offers from any of these schools. Past the deadline to apply to the local 4-year colleges, Trinh decides to go to the local community college and live at home. Her counselor tries to persuade Trinh to reconsider one of the Ivy League schools. Trinh tells the counselor that she needs to stay home to help care for younger siblings and translate for her parents during doctors' visits. The counselor engages Trinh in a role play to help her tell her parents that she needs to make her own decisions and go away to college.

Although school counselors do want their students to succeed, what underlying values might have clouded the counselor's judgment in working with Trinh? Trinh had given the counselor signals that she was not ready to move hours away when she asked about local colleges. Perhaps the counselor, working from a belief that individualism is preferred, ignored these clues, hoping not to play into Trinh's "separation anxiety." If the counselor had viewed her client as being both Trinh and her family, rather than only a young woman needing to be more independent, she could have worked with the family to make a decision that addressed both Trinh's needs and those of her family. By ignoring Trinh's cultural background and her sense of responsibility to the family, the counselor could not help in an informed way.

Given the vast diversity within the United States, both healthcare professionals and counselors must develop cultural humility as they work with individuals whose life experiences vary in myriad ways based on many intersecting dimensions of diversity. A primary component of cultural humility is self-awareness. As a healthcare professional, completely exploring one's own identity is of extreme importance. It is through knowing and understanding oneself that counselors and healthcare professionals can uncover their beliefs, values, and, moreover, their implicit biases.

Implicit bias is defined as an unconscious and unintentional bias (van Nunspeet et al., 2015). Individuals may not be aware of their implicit biases (Byrne & Tanesini, 2015). These biases are the result of combinations of factors including an individual's early experiences and learned cultural biases. Thus, ongoing critical self-reflection that understands the existence of implicit biases within everyone is necessary. Repeated and evolving processes of self-reflection make healthcare professionals' implicit biases explicit and, therefore, subject to examination and change (Byrne & Tanesini, 2015). In addition to understanding their own implicit biases, healthcare professionals, especially those from dominant societal groups (e.g., White, heterosexual, male), need to explore their own racial, ethnic, sexual, and class identity. Individuals from dominant cultural paradigms often consider themselves without racial, ethnic, sexual, or class identity as they have privilege; their identities are considered the norm. However, without deep exploration of intersecting aspects of personal diversity, it is difficult to understand oneself and where biases might insert themselves into healthcare professional relationships (Fisher-Borne et al., 2015).

Self-reflection and self-critique

Self-reflection and self-critique are ongoing, lifelong processes that allow healthcare professionals to continually refine their understanding of themselves and their actions and reactions within counseling contexts and to continually broaden and deepen their cultural understanding through introspection (Foronda et al., 2016). Through ongoing self-reflection and critique, the healthcare professional develops a better understanding of the dynamics within and outside the healthcare arena and of the ways these dynamics affect the patient's life, the healthcare professional's life, and the interactions between healthcare professional and patient.

Self-reflection is defined as deliberately paying attention to one's own thoughts, emotions, decisions, and behaviors. It is important for healthcare professionals to be able to self-reflect in "real time" as they deal with the variety of situations encountered in an ever-changing healthcare environment (Wignall, 2019).

Self-critique is the process of critically examining oneself to continually refine their understanding of themselves and their actions and reactions and to continually broaden and deepen their cultural understanding through introspection. Self-reflection and self-critique are best incorporated into practice on a reflexive basis. That is, the ongoing process of self-reflection should result in an automatic process or reflection as an integral part of practice. (Foronda et al., 2016).

Respectful partnerships

Developing respectful partnerships is key to providing healthcare services with cultural humility and, more generally, to developing a relationship within the counseling setting that allows work to begin and to continue in a productive fashion. Respectful partnerships include discussing and addressing such difficult topics and issues as race, socioeconomic class, gender, sexual identity, and disability. These discussions are uncomfortable for many; they bring up feelings, often passionate, associated with "isms," group identification, prejudice, quotas, and affirmative action. Yet these differences between healthcare professional and patient are a presence in the room and, when ignored, have the potential to interfere with an honest and open exchange (Minarik, 2017).

Healthcare professionals often attempt to take the emphasis off race, class, gender, and other areas of difference by denying the effect these aspects of diversity have on patients (e.g., "The only race I know is the human race"), or by trying to show that they understand the patient's experience because they, too, are a member of an oppressed group. For example, the African American patient may not feel that the healthcare professional, as a bisexual Jewish woman, understands subtle racial insults from personal experiences. Some healthcare professionals

imply that because they personally do not discriminate against oppressed groups, no personal or societal problems exist associated with race, class, LGBTQ status, or disability; this attitude negates the experience the patients may have in the larger society, where they experience various degrees of marginalization based on their intersecting identities (Minarik, 2017).

Respectful partnerships are developed when the healthcare professional facilitates a dialogue that illustrates an understanding of and attends to the complex dynamics related to privilege, oppression, and marginalization present within the patient/healthcare professional relationship and embedded within the larger society. The healthcare professional levels the playing field by conveying a respect for the patient and the patient's lived reality while inviting the patient to enter an equal partnership with the healthcare professional.

Healthcare Professional Consideration: The development of respectful partnerships is ongoing and acknowledges that the healthcare professional does not know what the patient's identity, life, or struggles look like but is eager to learn from the patient. Further, healthcare professionals who are developing respectful partnerships recognize that they may make mistakes and are open to patient feedback regarding those mistakes.

Self-Assessment Quiz Question #7

All the following statements concerning self-reflection, self-critique, and respectful partnerships are true EXCEPT:

a. Discussing and addressing topics and issues such as race and sexual identify may be uncomfortable for many people.
b. Healthcare professionals seldom attempt to take emphasis off race, gender, and other areas of differences.
c. Self-reflection and self-critique are ongoing, lifelong processes.
d. Self-reflection should result in an automatic process as an integral part of practice.

Lifelong learning

The commitment to lifelong learning within the ethical standards requires healthcare professionals to participate in activities that keep them current on issues and interventions within healthcare and that allow them to provide patients with the most appropriate care and service. Lifelong learning in the context of cultural humility emphasizes the importance of current issues inclusive of a multicultural perspective that encompass aspects of critical self-reflection and advocacy involving continued growth and learning. According to Fisher-Borne and colleagues (2015), "Cultural humility considers the fluidity and subjectivity of culture and challenges both individuals and institutions to address inequalities.

Cultural humility requires self-reflection and taking risks, discovering new information, and using patients and others as resources (Obiakor & Algozzine, 2016). Culturally humble learners understand that they will both make mistakes and learn from those mistakes because, as healthcare professionals, they are in a constant state of becoming. Lifelong learning allows the healthcare professional to integrate shifting paradigms and embark on continual reflection and reeducation regarding dominant perspectives on marginalized populations and communities (Obiakor & Algozzine, 2016). Finally, it requires that healthcare professionals separate themselves from thinking about patients from a deficit perspective and instead think of patients as fellow humans with rich intellectual, cultural, ethnic, and class backgrounds and with a myriad of strengths (Obiakor & Algozzine, 2016). Recognizing and reflecting on one's own possible biases, religious values, and family values may help to limit the influence of those biases on their patient interactions.

White identity

White identity theory was first developed by Helms in the 1980s and 1990s as a tool for White healthcare professionals to "create meaning about their identities as Caucasians, particularly in terms of how they think about, respond to, react to and interact with patients from different racial/ethnic groups" (Chung & Bemak, 2012, p. 67). In other words, the theory's formation was based on the idea that White people are so immersed in the dominant culture that they are unaware of the influence of the dominant culture's ethnocentric images and ideals. Being White makes it easier to assimilate into the dominant culture and to partake in unearned privileges many White people enjoy but do not acknowledge. Most White people perceive themselves as unbiased, but such self-perception may truly impede one from taking responsibility for one's own prejudices (Sue & Sue, 2016). White healthcare professionals have a special responsibility to understand their own privileges, biases, racism, and discrimination so that they may develop a positive relationship within counseling sessions.

Healthcare Professional Consideration: National surveys do not have a historical track record of asking White people meaningful questions about their racial identity (Schildkraut, 2017). Healthcare professionals should promote research that includes questions about racial identity.

Self-Assessment Quiz Question #8

When exploring one's own beliefs about White identify, it is important to acknowledge that:

a. Most White people perceive themselves as biased.
b. White identity theory was first developed to discount the idea that White identity exists.
c. National surveys often ask White people questions about their racial identity.
d. Being White makes it easier to assimilate into the dominant culture.

Assessment and treatment

It is important for healthcare professionals to approach every individual patient with a cognizance of the possible various intersecting identities within the patient, but without a stereotype of the patient based on preconceived notions of these intersecting identities (e.g., race, ethnicity, LGBTQ status). Implementing the practice of cultural humility may flummox healthcare professionals as they approach patients in a clinical setting (Schildkraut, 2017).

The following example from Wyatt (n.d.) illuminates some key elements of providing patient care with cultural humility. An interracial couple, an African American father and a White mother, come into therapy because their child was kicked out of school for fighting and the father was called into child protective services for spanking his child. When they entered the office, the father was very angry and the mother was getting extremely upset, trying to calm him down. The White therapist suggested meeting with the father alone first. When he met with the father,

rather than trying to silence his rage, he joined with him by stating, "It sounds like you're furious with the situation that's happened; you're tired of it." The father was able to calm down at that point, as the White therapist was allowing him to be angry in his presence and was acknowledging that there might be a reason for anger. The therapist then asked the father if his disciplining method had anything to do with wanting to protect his child. The father responded that, yes, he was afraid his child, "a Black kid," was at risk of going to prison if he was fighting at school. The father did not want that for his child and was frightened. By providing room for the father to express his rage and his fear, the therapist was able to make the clinical session more meaningful.

Healthcare professionals who practice cultural humility also recognize that assessment tools and treatment protocols may not be appropriate for all patients. Historically, many therapeutic strategies employed in patient care were developed without empirically supported research with ethnic minorities (Sue & Sue, 2016). However, healthcare professionals should not rely solely on manualized treatment protocols to guide their interventions, as such an approach can fail to appreciate patients' unique experiences and the effect of differing social environments. Rather, when employing a research-based therapeutic practice, healthcare professionals should adapt the approach in accordance with the patients' values, experiences, and preferences while understanding the influence of the broader societal context (Jackson, 2015). Through facilitating a respectful partnership that allows patients to take the lead in narrating their experiences and in identifying personal treatment goals, healthcare professionals can create an environment that appreciates patients' perspectives. Table 6 outlines the important aspects of the multicultural perspective in clinical settings.

The considerations outlined in Table 6 require healthcare professionals to balance many different facets of patients and their lived experiences. It is especially important in treatment to adhere to these guidelines, as it sets up a therapeutic environment in which healthcare professional and patients are equal, while forcing healthcare professionals to consider the validity of various worldviews and the structural inequities that contribute to the problems and issues patients bring into therapeutic relationships.

Table 6: Multicultural Perspectives in Providing Healthcare

1. Provides the opportunity for two persons – from different cultural perspectives – to disagree without one being right and the other wrong.
2. Tolerates and encourages a diverse and complex perspective.
3. Allows for more than one answer to a problem and for more than one way to arrive at a solution.
4. Recognizes that a failure to understand or accept another worldview can have detrimental consequences.
5. Takes a broad view of culture by recognizing the following variables: ethnographic (ethnicity, race, nationality, religion, language usage, ability, LGBTQ status); demographic (age, gender, gender identity, place of residence); status (social, economic, educational factors); affiliations (formal memberships, informal networks).
6. Conceives of culture as complex when we count the hundreds or perhaps even thousands of culturally learned identities and affiliations that people assume at one time or another.
7. Conceives of culture as dynamic as one of such culturally learned identities replaces another in salience.
8. Uses methods and strategies and defines goals constituent with life expectations and values.
9. Views behaviors as meaningful when they are linked to culturally-learned expectations and values.
10. Acknowledges as significant within-group differences for any particular ethnic or nationality group.
11. Recognizes that no one style of counseling – theory of school – is appropriate for all populations and situations.
12. Recognizes the part that societal structures play in patient's lives.

Note. Adapted in part from Gonzale et al., 1994.

Self-Assessment Quiz Question #9

Multicultural perspectives in providing healthcare include all the following EXCEPT:

a. Provides opportunities for two persons from the same cultural perspective to disagree.
b. Takes a broad view of culture by recognizing variables.
c. Uses methods and strategies and defines goals constituent with life expectations.
d. Views behaviors as meaningful when they are linked to culturally learned values.

Healthcare professional roles

Culturally humble healthcare professionals need to work toward understanding themselves and their patients within the context of privilege, oppression, and marginalization. A healthcare professional's work engages patients as equal partners and addresses social inequalities and injustices on institutional and societal levels. The culturally humble healthcare professional sees their role in the provision of "therapeutic interventions" and addresses systems that serve to oppress marginalized communities to promote optimal well-being for patients, communities, and society. The healthcare professional can fulfill many roles. Because multicultural patient care is closely linked to the values of social justice, the need for a social justice orientation in patient care is apparent (Sue & Sue, 2016).

Social justice counseling is defined as "an active philosophy and approach aimed at producing conditions that allow for equal access and opportunity; reducing or eliminating disparities in education, health care, employment, and other areas that lower the quality of life for affected populations; encouraging the healthcare professional to consider micro, mezzo, and macro levels in the assessment, diagnosis, and treatment of patient and patient systems; and broadening the role of the helping professional to include not only caregiver/patient therapist but advocate, consultant, psycho-educator, change agent, community worker, and so on" (Sue & Sue, 2016, p. 134). The social justice perspective requires healthcare professionals to assess and intervene with a perspective that balances the individual patient and the system(s) in which the patient is experiencing difficulties (Sue & Sue, 2016).

The healthcare professional can act as advocate and actively speak with and, when necessary, for members of populations who are oppressed by the dominant society. These populations are confronted with institutional and societal oppression. Healthcare professionals can also be effective as "change agents" working to transform oppressive features of the institutional and societal environments. Rather than attributing patient problems to individual deficits, the healthcare professional works with the patient to identify external contributors to the problem and to remediate the consequences of oppression.

Further, critical self-reflection in the context of cultural humility includes analysis of power differentials and how those differentials may play out on both individual and institutional levels (Fisher-Borne et al., 2015). Practicing with cultural humility suggests that healthcare professionals go beyond the confines of their offices to address differences in power and privilege that affect patients in very tangible ways.

Healthcare professionals need to be self-aware and realize that patients react positively to healthcare professionals who display personal warmth, authenticity, credibility, and respect and who strive for human connectedness. Practicing with cultural humility provides the following:

> *A promising alternative to cultural competence … as it makes explicit the interaction between the institution and the individual and the presence of systemic power imbalances. It further calls upon practitioners to confront imbalances rather than just acknowledge they exist. Cultural humility challenges us to ask difficult questions instead of reducing our clients to a set of norms we have learned in a training or course about "difference." We believe that asking critical questions … challenge our own practice as well as our organizations and institutions and will provide a deeper well from which to approach individual and community change and effective long-term practice (Fisher-Borne et al., 2015, p. 177).*

Institutional and societal accountable: Social justice

Healthcare delivery takes place within and reflects the larger culture. Although healthcare delivery can certainly aid in the wellness of patients, it does not occur in a vacuum. Wellness cannot be achieved when social injustice is present.

Traditionally some healthcare professionals may consider issues of social justice outside the realm of their practice; however, if social justice is relegated to a select few, oppression will flourish and efforts to heal communities will be blocked. The healthcare professional practicing within a social justice framework would not locate the problem within the individual but would look to the environmental factors that contribute to the actions and reactions of the individual (Sue & Sue, 2016).

Social justice is the view that everyone deserves equal economic, political, and social rights and opportunities. Social justice depends on economic justice. Proponents of social justice explain that there must be fair and compassionate distribution of economic growth. Social justice requires that all persons be provided with access to what is good for the person and in associations with others. According to the principles of social justice, all people have a personal responsibility to work with others to design and continually perfect societal institutions for both personal and social development (San Diego Foundation, 2016).

Although there are variations among the definitions of social justice, there are three factors that are part of all definitions. These are (San Diego Foundation, 2016):

- Equal rights.
- Equal opportunity.
- Equal treatment.

In other words, social justice mandates equal rights and equal opportunities for everyone.

It is imperative that healthcare professionals ask themselves key questions that facilitate the acquisition of social justice. Examples of such questions include the following:

- How do my behaviors within patient interactions actively challenge any power imbalances and involve communities experiencing marginalization?
- How, as healthcare professionals, do we address inequalities?
- How am I extending my responsibility beyond individual patients?
- How am I advocating for policy and practice changes at institutional, community, state, and national levels?
- What institutional structures are in place that address inequalities?
- What training and professional development activities are offered at our institution or in our community that address inequalities?
- How can we engage our community to make sure its voice is heard in this work?

(Adapted and updated from Fisher-Borne et al., 2015, p. 176).

These types of questions can provide a starting point for healthcare professionals to address social injustices. Healthcare professionals can use their positions to advocate for changes in society to promote social justice. Working toward social justice, patients are empowered and can help create an environment in which equal rights, treatment, and opportunity are available to all.

Self-Assessment Quiz Question #10

The factors that are common to all definitions of social justice include:

a. White identity.
b. Equal opportunity.
c. Equal incomes.
d. Diversity in all groups.

DIFFERENCES BETWEEN MULTICULTURAL COMPETENCY AND CULTURAL HUMILITY

Cultural humility is a conceptual framework that was first developed and utilized in the field of medicine and nursing in the 1990s. Since that time, it has become more widely applied to all helping professions. The framework is intended to address some of the shortcomings within the cultural competency and multicultural counseling frameworks. The approach of cultural humility differs from the multicultural competency approach in that it recognizes that knowledge of different cultural backgrounds is not sufficient to develop an effective patient/healthcare professional relationship with each individual. The cultural competency and multicultural counseling frameworks are most often criticized for creating a model that serves to "other" ethnic, racial, and various minority groups (Carten, 2016, p. xlii) while not acknowledging "Whiteness" as an identity and as a culture. "Othering" is the term used for the "biased assumptions about populations viewed as 'the other' at various times in the country's history" as well as in the present (Carten, 2016, p. xlii).

Othering assumes that various oppressed and marginalized populations are different from the American "norm," commonly understood as a White, middle class, able-bodied, straight, male, and individually responsible for any difficulties they may experience. Multicultural patient care delivery and cultural competency frameworks commonly assume that the healthcare professional is White and that patients are the "other" and set out to describe what various racial and ethnic groups believe and how they act as a group. On the other hand, a cultural humility framework emphasizes self-understanding as primary to understanding others. To facilitate self-understanding, cultural humility encourages ongoing critical self-reflection, asking the healthcare professionals to delve into their cultural identity and its effect on the delivery of patient care. Cultural humility makes no assumption regarding the healthcare professional's identity and especially challenges White practitioners to explore and understand their "White identity" (Carten, 2016). Table 7 illustrates the differences between (multi)cultural competence and cultural humility frameworks.

Table 7: (Multi) Cultural Competence and Cultural Humility		
	(Multi) Cultural Competence	Cultural Humility
Perspectives on Culture	• Acknowledges layers of cultural identity. • Recognizes danger of stereotyping.	• Acknowledges layers of cultural identity. • Understands that working with cultural differences is an ongoing, lifelong process • Emphasizes understanding self as well as understanding patients..
Assumptions	• Assumes the problem is a lack of knowledge, awareness, and skills to work across lines of difference. • Individuals and organizations develop the values, knowledge, and skills to work across lines of difference.	• Assumes an understanding of self, communities, and colleagues is needed to understand patients. • Requires humility and a recognition and understanding of power imbalances within the patient-healthcare professionals' relationship and in society.
Components	• Knowledge. • Skills. • Values. • Behaviors.	• Ongoing critical self-reflection. • Lifelong learning. • Institutional accountability and change. • Addressing and challenging power imbalances.
Stakeholders	• Practitioner.	• Patient. • Practitioner. • Institution. • Larger community.
Critiques	• Suggests an end point. • Can lead to stereotyping. • Applied universally rather than based on a specific client's experience(s). • Issues of social justice not adequately addressed. • Focus on gaining knowledge about specific cultures.	• A "young concept". • Empirical data in early stages of development. • Conceptual framework still being developed.
Note. Adapted from Fisher-Borne, M., Cain, J. M., & Martin, S. L. (2015). From mastery to accountability: Cultural humility as an alternative to cultural competence. Social Work Education, 34, 165-181.		

Although the intent to understand the diversity within the United States is meant to be helpful to healthcare professionals, it often leads to strengthening the status quo (i.e., "White" as the norm and all other racial and ethnic groups as outside that norm). Because of the desire to describe various racial and ethnic norms, multicultural patient care delivery and cultural competency frameworks tend to overlook the diversity within ethnic and racial minority groups and within "White" groups (Carten, 2016; Fisher-Borne, 2015).

The multicultural counseling and cultural competency frameworks also tend to neglect the intersecting dimensions of diversity. By focusing on ethnic and racial groups, these models neglect the complexity of group and individual identity. Complex identities include a multitude of dimensions of diversity, such as race, ethnicity, socioeconomic class, LGBTQ status, dis/ability, religion, regionality (e.g., southern, northern, western, eastern regions of the United States), age, gender, religion, etc. These dimensions of diversity intersect in many ways. The intersectionality of a multitude of dimensions that are oppressed or marginalized identities within one individual may result in experiencing much discrimination (Rosenthal, 2016). On the other hand, the intersection of a multitude of dimensions that are privileged within one individual may result in experiencing much opportunity. Moreover, the intersectionality of dimensions of diversity results in an infinite number of individual identities that are difficult, if not impossible, to categorize (Rosenthal, 2016).

Multicultural counseling and cultural competency frameworks have been further criticized for focusing on having healthcare professionals gain knowledge regarding differing racial and ethnic groups and assuming that there is an end point in cultural training, where the healthcare professionals' competency is deemed competent (Fisher-Borne et al., 2015). However, culture is fluid and ever-changing, with a complex array of interacting dimensions. Thus, it is not possible to reach an end point and to be deemed competent.

The final major criticism of multicultural patient care delivery and cultural competency frameworks is that they do not present a social change/social justice perspective (Fisher-Borne et al., 2015). These frameworks assume that the lack of knowledge and understanding of oppressed and marginalized groups is commonly responsible for inadequate and/or ineffective healthcare delivery. The frameworks fail to address the power imbalances present in society and its institutions that are integral to many challenges and/or issues that patients bring to healthcare interactions. Cultural humility requires patient care professionals to recognize the power imbalances within the healthcare community and in society. Moreover, cultural humility demands that practitioners hold institutions accountable and asks that healthcare professionals work to right social injustices on community and national levels to achieve wellness for patients that can only be realized through working toward a more equitable society (Foronda et al., 2016).

It is important to note that the healthcare professions are committed to cultural competency and increasingly understand the need to adopt a cultural humility framework as well. Healthcare professions incorporate cultural competency and cultural humility within their ethical and educational guidelines for competent practice (APA, 2017; ASCA, 2016; NASW, 2021). The professions share some commonalities within their guidelines for culturally sensitive practice. There is a need to continually develop an understanding of the diversity of patients and to commit to lifelong learning.

Case study: James Choi

James Choi is a 25-year-old Korean American, a new college graduate who recently accepted a job as a fund-raiser at the Humane Society. He was adopted when he was 8 months old into a middle-class White family. He seeks therapy because he feels that he is not achieving as much as he would like with his career. James is feeling anxious and has some symptoms of depression. His family physician has prescribed an antidepressant and encourages James to participate in mental health therapy. He is seeing Denise, a clinical psychologist who works in a large mental health counseling practice. Denise is a 30-year-old White woman. She is a recent graduate who has learned a bit about Asian American culture in her graduate coursework. On James's first visit, Denise asks him what brings him to counseling. James explains that he is disappointed in himself for not achieving more in his career. He explains that he has been feeling anxious and depressed and identifies the antidepressant that he is taking. Denise nods in understanding and remembers that Asian American families often have high academic standards and family members have a difficult time seeking therapy, concerned about losing face. As a result, Denise compliments James on being brave enough to seek therapy. James seems confused by Denise's response but manages to say thank you. James then proceeds to tell Denise that his parents encouraged him to seek therapy, as they thought that he was showing signs of depression. Denise is surprised that an Asian family would encourage their son to seek counseling but knows that she may have been stereotyping based on his ethnicity. Denise continues with the questions, as she does want to know more about his feelings regarding not achieving as much as he would like in his career as well as his symptoms of anxiety and depression. She asks James why he is feeling that he is not achieving as much as he should be. James shrugs and says he thought he would be at a higher position after completing college. Denise knows that Asian Americans often expect high achievement from their children, so she asks James how his parents feel about his success thus far. James surprises her again when he says his parents are extremely proud of him and think he has landed a great first job. Denise is baffled and asks James to share more about his disappointment given his parents' support and his success at both graduating from college and getting a job so quickly. She remembers again to be careful not to stereotype. When the session concludes, she asks James to schedule another session so they can explore his concerns further. James says he will on his way out and thanks Denise for her help. Yet, he never returns to counseling.

Questions

1. What are some of the reasons James might not have pursued further therapy with Denise?
2. How could Denise have prepared differently for her session with James?
3. How might she have applied some of the facets of cultural humility in her counseling?
4. How do you think James thinks the healthcare professional perceives him? Is it helpful to the therapeutic relationship?

This case illustrates how unintentional stereotyping can hinder the development of a therapeutic relationship. Denise is aware that she may be stereotyping but is having difficulty changing her thinking about Asian Americans. James's experiences in life are vastly different from what Denise imagines they are, and thus he feels as if he is not being understood or helped by Denise. Denise might be helped by engaging in critical self-reflection after her session with James. She might ask herself what went wrong. She might further explore her stereotypical reaction to James and how that might have alienated him rather than engaged him in working with her. Denise might have had more success if she had questioned him more about his background and his family and had engaged him as an expert on his own life as she forged a respectful partnership with him. It seems as if Denise felt she had to be the expert and display cultural competency, which may have prevented her from being able to listen to James and discover the unique diversity in his life.

Case study: Linda Rogers

Linda Rogers is a 28-year-old White woman who has two children, ages seven and three. She and her fiancé live in a trailer park in a rural area. She comes into the county mental health clinic because she is experiencing headaches and dizziness and often has severe stomachaches. The clinic physician suggested Linda make an appointment because, upon examination, she could not find a physical reason for Linda's headaches and stomach problems. During the intake, Linda reports that she often skips meals or eats something from the vending machine at work for lunch; she also admits to smoking. Linda also reports that she typically feels fine and tries to limit her visits to the clinic. When Janine, the African American, upper-middle-class mental health nurse practitioner, asks Linda what she feels her stomachaches are caused by, Linda seems unsure and on the verge of tears. Janine compliments Linda for coming to therapy and asks her to discuss her problems more fully. Linda states that she has a lot of stress in her life as she has two minimum-wage jobs and two kids. She states that her fiancé is supportive, but he experiences a great deal of stress, too. Janine is empathetic and agrees that there is a lot of stress in Linda's life. Janine asks Linda what she does to reduce stress. Linda states that her breaks at work give her the opportunity to smoke and that smoking temporarily relieves her stress and her physical symptoms. Janine feels strongly that smoking is a bad habit, and although it might temporarily relieve stress, Linda should attempt healthy stress relief techniques. Linda nods in agreement but acknowledges it has been difficult to quit smoking. Janine asks what Linda likes to do in her free time. Linda states that she does not have much free time between work and her kids. Janine asks Linda if she would like information about a smoking-cessation class offered at the clinic to help her stop smoking. Linda nods and accepts the pamphlet Janine offers. They spend the rest of the session brainstorming about other ways to reduce the stress in Linda's life. Linda is engaged in the brainstorming and agrees to try to use her work breaks to walk off her stress. At the end of the session, Janine again affirms Linda, telling her she is glad that she came in and that it is wonderful she will begin smoking-cessation classes and use her work breaks to decrease her stress by taking a short walk.

Linda misses the next several sessions with Janine. She shows up for a session with Janine several months later. Janine greets Linda warmly and says she has missed her at her previously scheduled sessions. Janine then asks Linda about her stress and her headaches and stomachaches. Linda says she is still very stressed and continues to experience headaches and stomachaches. Janine gently asks whether she attended any smoking-cessation sessions. Linda states that she doesn't have the time or energy to attend the classes. Janine asks whether Linda has been walking during work breaks. Linda looks abashed but admits that she is still using breaks to smoke. Janine is a bit frustrated and asks Linda what she thinks they should work on in session today to reduce stress. Linda doesn't seem to know what to do, so Janine suggests they try other options to reduce stress. Linda agrees. The rest of the session is spent coming up with a detailed plan to reduce stress through breathing exercises and a plan to try to attend smoking-cessation sessions.

When Linda returns to counseling several weeks later, she again admits to not following through on Janine's suggestions. She is still stressed. Janine is frustrated at the lack of progress

but continues to try to help Linda with her stress through offering a variety of self-care options. Linda continues to agree to try a variety of techniques and agrees to continue to meet, but with little enthusiasm.

Questions

1. What cultural forces might have affected Linda and Janine's interactions?
2. How might Janine have explored Linda's stress more comprehensively?
3. How did the therapy techniques reflect a middle-class perspective?
4. If you were the nurse practitioner, what would you do? Why?

It is not surprising that Linda sought help from the clinic doctor first because her poverty likely afforded her little opportunity to seek therapy. Fortunately, the clinic she went to had counseling services available and Linda was able to meet with a therapist.

Although Janine is empathetic and caring, she fails to make headway with Linda's stress and is frustrated by Linda's lack of follow-through. Janine neglects to thoroughly explore the role that poverty plays, both in Linda's stress response and in her ability to pursue stress reduction in the way that someone with more resources might be able to. Linda does not have the luxury of time, and smoking provides her quick relief. Although Linda may want to stop smoking, it is unlikely that she has the time to devote to smoking-cessation classes. Janine might have wanted to work with Linda on some of the stressors in her life that require advocacy outside the office. For example, Linda's inadequate diet may be the result of not being able to afford enough food. Janine could have explored this with Linda and helped Linda access various governmental and nonprofit programs to help her obtain sufficient food. Although Linda agreed to continue to work with Janine, she may have done so because she does not feel that she had an option.

Conclusion

When working with patients from diverse backgrounds, healthcare professionals must be willing to continuously look at personal dimensions of diversity and at how those dimensions affect their worldview and their view of their patients. Thus, healthcare professionals enter the professional relationship with a solid base of self-knowledge and a continuous commitment to critical self-reflection. Healthcare professionals also enter into patient interactions with an open mind and curiosity regarding patient's lived experience. Healthcare professionals do not pretend to know or understand each patient's unique combination of facets of diversity and do not assume that the patient will behave or believe in any way based on those facets of diversity. In fact, the culturally humble healthcare professional "cultivate(s) openness to the other person by regulating one's natural tendency to view one's beliefs, values, and worldview as superior, indeed, the culturally humble healthcare professional strives to cultivate a growing awareness that one is inevitably limited in knowledge and understanding of patients' backgrounds" (Hook et al., 2016, p. 152).

This stance of openness and equality provides an environment for healthcare professionals to enter respectful and equitable partnerships with patients. Moreover, the culturally humble healthcare professional considers how the societal structures in the United States serve to oppress some individuals and groups while empowering other individuals and groups. Patients are affected by the inequality within the United States. They are affected by living in a society where racism, sexism, classism, homophobia, and discrimination based on a variety of other diverse identities, including disability and gender identity, are expressed in a multitude of ways; this discrimination obstructs access to resources and opportunities and impedes interpersonal relationships. The power imbalances within society and institutions and as experienced by patients require the culturally humble healthcare professional to take an active role in righting those imbalances. Cultural humility challenges healthcare professionals to ask difficult questions and encourages them not to reduce patients to a preconceived set of cultural norms that have been learned in trainings about diversity and difference (Foronda et al., 2016). Finally, the culturally humble healthcare professional will engage in lifelong learning that supports effective practice.

References

- American Psychological Association. (2017). *Ethical principles of psychologists and code of conduct.* http://www.apa.org/ethics/code/ethics-code-2017.pdf
- American School Counselor Association. (2016). *ASCA ethical standards for school counselors.* https://www.schoolcounselor.org/getmedia/f041cbd0-7004-47a5-ba01- 3a5d657c6743/Ethical-Standards.pdf
- Baah, F. O., Teitelman, A. M., & Riegel, B. (2018). Marginalization: Conceptualizing patient vulnerabilities in the framework of social determinants of health: An integrative review. *Nursing Inquiry,* 26(1), e12268. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6342665/ https://doi.org/10.1111/nin.12268
- Bleiweis, R., Boesch, D., & Gaines, A. C. (2020). *The basic facts about women in poverty.* https://www.americanprogress.org/issues/women/reports/2020/08/03/488536/basic-facts-women-poverty/
- Bunch, L. (2016). America's moral debt to African Americans. *Africology: The Journal of Pan African Studies, 9*(5), 106-108. http://www.jpanafrican.org/docs/vol9no5/9.5-10-Bunch.pdf
- Byrne, A. & Tanesini, A. (2015). Instilling new habits: Addressing implicit bias in healthcare professionals. *Advances in Health Science Education, 20,* 1255-1262. https://doi.org/10.1007/s10459-015-9600-6.
- Carten, A. J. (2016). Introduction: The overview. In A. J. Carten, A. B. Siskind, & M. Pender Greene (Eds.), *Strategies for deconstructing racism in the health and human services* (pp. xxix - xxxv). Oxford University Press.
- Centers for Disease Control and Prevention (CDC). (2020). *Disability impacts all of us.* https://www.cdc.gov/ncbddd/disabilityandhealth/infographic-disability-impacts-all.html
- Chung, R. C. Y. & Bemak, F. P. (2012). *Social justice counseling: The next steps beyond multiculturalism.* Sage.
- Dictionary.com. (2021). *Marginalization.* https://www.dictionary.com/browse/marginalization
- Equal Employment Opportunity Commission (EEOC). (2021). *EEOC FY 2020 statistics: EEOC's recovery on behalf of employees dramatically increased number of discrimination charges at all-time low.* https://www.jdsupra.com/legalnews/eeoc-fy-2020-statistics-eeoc-s-recovery-9089875/
- Fisher-Borne, M., Cain, J. M., & Martin, S. L. (2015). From mastery to accountability: Cultural humility as an alternative to cultural competence. *Social Work Education, 34,* 165-181. https://doi.org/10.1080/02615479.2014.977244.
- Florin, P. Y. (2020). *What is LGBTQ discrimination? LGBT rights and laws.* https://florinroebig.com/lgbtq-discrimination/
- Foronda, C., Baptiste, D. L., Reinholdt, M. M., & Ousman, K. (2016). Cultural humility: A concept analysis. *Journal of Transcultural Nursing, 27,* 210-217. https://doi.org/10.1177/1043659615592677.
- Gonzalez, R. C., Biever, J. L., & Gardner, G. T. (1994). The multicultural perspective in therapy: A social constructionist approach. *Psychotherapy: Theory, Research, Practice, Training, 31,* 515-524. https://doi.org/10.1037/0033-3204.31.3.515.
- Gruberg, S., Mahowald, L., & Halpin, J. (2020). *The state of the LGBT community in 2020.* https://www.americanprogress.org/issues/lgbtq-rights/reports/2020/10/06/491052/state-lgbtq-community-2020/
- Hook, J. N., Watkins, C. E., Davis, D. E., Owen, J., Van Tongeren, D. R., & Ramos, M. J. (2016). Humility in psychotherapy supervision. *American Journal of Psychotherapy, 70*(2), 149-166.
- Hutchison, E.D. (2021). *Dimensions of human behavior: The changing life course (6th ed.).* Sage.
- Jackson, V. H. (2015). Practitioner characteristics and organizational contexts as essential elements in the evidence-based practice versus cultural competence debate. *Transcultural Psychiatry, 52,* 150-173. https://doi.org/10.1177/1363461515571625.
- McIntosh, P. (1998). White privilege and male privilege: A personal account of coming to see correspondences through work in women's studies. https://www.collegeart.org/pdf/diversity/white-privilege-and-male-privilege.pdf
- Merriam-Webster. (2021). *Oppression.* https://www.merriam-webster.com/dictionary/oppression
- Minarik, J. D. (2017). Privilege as privileging: Making the dynamic and complex nature of privilege and marginalization accessible. *Journal of Social Work Education, 53,* 52-65. https://doi.org/10.1080/10437797.2016.1237913.
- Nagata, D. K., Kim, J. H. K., & Nguyen, T. U. (2015). Processing cultural trauma: Intergenerational effects of the Japanese American incarceration. *Journal of Social Issues, 71,* 356-370. https://doi.org/10.1111/josi.12115
- National Association of Social Workers. (2021). *Code of ethics of the National Association of Social Workers.* Author. https://www.socialworkers.org/about/ethics/code-of-ethics
- National Conference for Community and Justice (NCCJ). (2021). *Social justice definitions.* https://www.nccj.org/resources/social-justice-definitions
- Obiakor, F. E. & Algozzine, B. (2016). Editors' comments: Lighting multicultural candles through lifelong learning. *Multicultural Learning and Teaching, 11,* 1-7. https://www.semanticscholar.org/paper/Editors%E2%80%99-Comments%3A-Lighting-Multicultural-Candles-Obiakor-Algozzine/23e52c41a685d7faf90824fffb63897cd993e5ad
- Pew Research Center. (2020a). *Facts on U.S. immigrants, 2018.* https://www.pewresearch.org/hispanic/2020/08/20/facts-on-u-s-immigrants-current-data/
- Pew Research Center. (2020b). *Key findings about U.S. immigrants.* https://www.pewresearch.org/fact-tank/2020/08/20/key-findings-about-u-s-immigrants/
- Prasad, S. J., Nair, P., Gadhvi, K., Barai, I., Danish, H. S., & Philip, A. B. (2016). Cultural humility treating the patient, not the illness. *Medical Education Online.* https://doi.org/10.3402/meo.v21.30908
- Rosenthal, L. (2016). Incorporating intersectionality into psychology: An opportunity to promote social justice and equity. *American Psychologist, 71,* 474-485. https://doi.org/10.1037/a0040323
- San Diego Foundation. (2016). *What is social justice?* https://www.sdfoundation.org/news-events/sdf-news/what-is-social-justice/
- Schildkraut, D. (2017). *What is American "White identity?" And why does it matter?* https://scholars.org/contribution/what-american-white-identity-and-why-does-it-matter
- Stubbe, D. E. (2020). Practicing cultural competence and cultural humility in the care of diverse patients. *Focus, The Journal of Lifelong Learning in Psychiatry* doi.org/10.1176/appi.focus.20190041
- Sue, D. W. & Sue, D. (2021). *Counseling the culturally diverse: Theory and practice (8th ed).* Wiley.
- Tervalon, M. & Murray-García, J. (1998). Cultural humility versus cultural competence: A critical distinction in defining physician training outcomes in multicultural education. *Journal of Health Care for the Poor and Underserved, 9,* 117-125. https://doi.org/10.1353/hpu.2010.0233.
- U. S. Census Bureau. (2020). *Income and poverty in the United States: 2020.* https://www.census.gov/library/publications/2021/demo/p60-273.html
- van Nunspeet, F., Ellemers, N., & Derks, B. (2015). Reducing implicit bias: How moral motivation helps people refrain from making "automatic" prejudiced associations. *Translational Issues in Psychological Science, 1*(4), 382-391. https://doi.org/10.1037/tps0000044
- Wignall, N. (2019). *The elements of self-reflection.* https://medium.com/the-understanding-project/the-elements-of-self-reflection-cdf7aa70ed2e
- World Health Organization. (2010). *A conceptual framework for action on the social determinants of health.* http://www.who.int/sdhconference/resources/ConceptualframeworkforactiononSDH_eng.pdf
- Wyatt, R. C. (n.d.). *Kenneth V. Hardy on multiculturalism and psychotherapy.* https://www.psychotherapy.net/interview/kenneth-hardy
- Yancu, C. N. & Farmer, D. F. (2017). Product or process: Cultural competence or cultural humility? *Palliative Medicine and Hospice Care,* 3(1), e1-e4. http://dx.doi.org/10.17140/PMHCOJ-3-e005

Self-Assessment Answers and Rationales

1. The correct answer is B.
Rationale: Cultural humility is an ongoing process, which requires continual self-reflection and self-critique. Cultural humility is a prerequisite to cultural competency.

2. The correct answer is C.
Rationale: The highest number of foreign-born people came from Mexico. They represented 25% of the population of foreign-born people by country of birth residing in the US. There were 11,182,111 people belonging to this group.

3. The correct answer is A.
Rationale: The highest poverty rates are experienced by Native American Indians, Alaska Natives, Black women, and Latinas. About one in four Alaska Native women live in poverty.

4. The correct answer is B.
Rationale: The type of functional disability that has the highest percentage is mobility. The percentage of people with mobility disability is 13.7%.

5. The correct answer is D.
Rationale: Oppression is a pervasive system. It has its foundation in history and is maintained via individual and institutional systematic discrimination, personal bias, bigotry, and social prejudice. Oppression leads to a condition of privilege for the person or the group that is the oppressor(s).

6. The correct answer is C.
Rationale: Creation of vulnerabilities are created by the cumulative impact of the creation margins and living between cultures. Vulnerability is defined as a state of being exposed to and unprotected from health-damaging environments.

7. The correct answer is B.
Rationale: Healthcare professionals often attempt to take the emphasis off race, class, gender, and other areas of difference by denying the effect these aspects of diversity have on patients' (e.g., "The only race I know is the human race"), or by trying to show that they understand the patient's experience because they, too, are a member of an oppressed group.

8. The correct answer is D.
Rationale: Being White makes it easier to assimilate into the dominant culture and to partake in unearned privileges many White people enjoy but do not acknowledge.

9. The correct answer is A.
Rationale: Multicultural perspectives provide the opportunity for two persons – from different cultural perspectives – to disagree without one being right and the other wrong.

10. The correct answer is B.
Rationale: Although there are variations among the definitions of social justice, there are three factors that are part of all definitions. These are equal rights, equal opportunity, and equal treatment. In other words, social justice mandates equal rights and equal opportunities for all.

Course Code: ANCCNC03CH

Diabetes Prevention and Management for Healthcare Professionals

5 Contact Hours

Release Date: November 16, 2021

Expiration Date: November 16, 2024

Faculty

Adrianne Avillion, D.Ed, RN, is an accomplished nursing professional development specialist and healthcare author. She earned a doctoral degree in adult education, an MS in nursing from Penn State University, and a BSN from Bloomsburg University. Dr. Avillion has held a variety of nursing positions as a staff nurse in critical care and physical medicine and rehabilitation settings, as well as numerous leadership roles in professional development. She has published extensively and is a frequent presenter at conferences and conventions devoted to the specialty of continuing education and nursing professional development. Dr. Avillion owns and is the CEO of Strategic Nursing Professional Development, a business that specializes in continuing education for healthcare professionals and consulting services in nursing professional development.

Adrianne Avillion has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Reviewer: Mary C. Ross, Ph.D., RN, is an experienced nursing clinician and educator. She has clinical expertise in nursing and various medical-surgical areas. Dr. Ross has had numerous research grants, and multiple publications and presentations. In addition to a BSN and an MSN, she has a doctorate in nursing.

Mary C. Ross has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Course overview

Diabetes is a significant health problem in the United States and throughout the world. It is imperative that the healthcare community take aggressive steps to reduce the number of Americans who have the disease and to promote more effective treatment so that persons with diabetes can enjoy their maximum quality of life. This education program presents information on both the impact of the disease and how to provide effective healthcare professional interventions to those affected.

Learning objectives

Upon completion of the course, the learner should be able to:

- Discuss the incidence and prevalence of diabetes mellitus.
- Explain the financial and societal impact of diabetes mellitus.
- Describe the normal anatomy and physiology of the pancreas.
- Differentiate among the different types of diabetes mellitus.
- Discuss the pathologies of the different types of diabetes mellitus.
- Explain the screening guidelines for diabetes mellitus.
- Identify risk factors for the development of diabetes mellitus.
- Describe the presenting clinical manifestations of each type of diabetes mellitus.
- Explain the process of diagnosing diabetes mellitus.
- Describe strategies for the management of diabetes mellitus.
- Identify the potential complications of diabetes mellitus.
- Describe healthcare professional interventions when caring for persons with diabetes mellitus.
- Discuss the educational needs of diabetic patients and their families.

How to receive credit

- Read the entire course online or in print which requires a 5-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal information and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion.

CE Broker reporting

Colibri Healthcare, LLC, provider # 50-4007, reports course completion results within 1 business day to CE Broker. If you are licensed in Arkansas, District of Columbia, Florida, Georgia, Kentucky, Michigan, Mississippi, New Mexico, North Dakota, South Carolina, or West Virginia, your successful completion results will be automatically reported for you.

Accreditations and approvals

Colibri Healthcare, LLC is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

Individual state nursing approvals

Colibri Healthcare, LLC is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation. In addition to states that accept courses offered by ANCC accredited Providers, Colibri Healthcare, LLC is an approved Provider of continuing education in nursing by: Alabama Board of Nursing, Provider #ABNP1418 (valid through February 5, 2025); Arkansas State Board of Nursing, Provider #50-4007; California Board of Registered Nursing, Provider #CEP17480 (valid through January 31, 2024); California Board of Vocational Nursing and Psychiatric Technicians (LVN Provider # V15058, PT Provider #V15020; valid through December 31, 2023); District of Columbia Board of Nursing, Provider #50-4007; Florida Board of Nursing, Provider #50-4007; Georgia Board of Nursing, Provider #50-4007; Kentucky Board of Nursing, Provider #7-0076 (valid through December 31, 2023; CE Broker provider #50-4007). Michigan Board of Nursing, Provider #50-4007; Mississippi Board of Nursing, Provider #50-4007; New Mexico Board of Nursing, Provider #50-4007; North Dakota Board of Nursing, Provider #50-4007; South Carolina Board of Nursing, Provider #50-4007; and West Virginia Board of Registered Nurses, Provider #50-4007. This CE program satisfies the Massachusetts States Board's regulatory requirements as defined in 244 CMR5.00: Continuing Education.

Activity director

Shirley Aycock, DNP, RN, Executive Director of Quality and Accreditation

Disclosures

Resolution of conflict of interest
In accordance with the ANCC Standards for Commercial Support for continuing education, Colibri Healthcare, LLC implemented mechanisms prior to the planning and implementation of the continuing education activity, to identify and resolve conflicts of interest for all individuals in a position to control content of the course activity.

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The information provided in this activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient's medical condition.

Course verification

All individuals involved have disclosed that they have no significant financial or other conflicts of interest pertaining to this course. Likewise, and in compliance with California Assembly Bill No. 241, every reasonable effort has been made to ensure that the content in this course is balanced and unbiased.

INTRODUCTION

According to the National Diabetes Statics Report, 2020, 34.2 million Americans, just over 1 in 10, have diabetes. Of these 34.2 million people, 7.3 million, or 21.4%, are undiagnosed (Centers for Disease Control and Prevention (CDC), 2020c; 2020d).
The World Health Organization (WHO) reports that in 2019 an estimated 1.5 million deaths were directly caused by diabetes (WHO, 2021). The numbers of people who have diabetes continue to increase at alarming rates. It is critical that healthcare professionals aggressively pursue identification of persons who have, and who are at risk for, developing diabetes, and intervene to facilitate not only treatment, but prevention efforts (CDC, 2020c; 2020d).

INCIDENCE AND PREVALENCE OF DIABETES MELLITUS

Diabetes mellitus (DM) is a chronic endocrine disease characterized by impaired glucose regulation that occurs when the pancreas fails to produce adequate amounts of insulin or when the patient's body is unable to effectively utilize the insulin that is produced (Ignatavicius et al., 2018; WHO, 2021).

Approximately 304.2 million Americans have diabetes. Data indicate that (CDC, 2020c; 2020d):

- An estimated 10.5% of the United States (US) population are dealing with diabetes.
- About 26.9 million people have been diagnosed. This figure includes 26.8 million adults.
- A significant number of these people, 7.3 million or 21.4%, are undiagnosed.
- A total of 88 million people 18 years of age and older have prediabetes. This figure represents 34.5% of the adult US population.
- For persons 65 years of age and older, 24.2 million people have prediabetes.

Healthcare Professionals Consideration: An estimated 1.5 million world-wide deaths were directly caused by diabetes in 2019 (WHO, 2021). Healthcare professionals must increase their efforts in the recognition, treatment, and prevention of diabetes mellitus.

Diabetes is also a leading cause of death in the United States. According to the most recent data available on the CDC website (2021d), the following are the leading causes of death in the United States.

1. Heart disease: 659,041
2. Cancer: 599,601
3. Accidents (unintentional injuries): 173,040
4. Chronic lower respiratory diseases: 156,979
5. Stroke (cerebrovascular diseases): 150,005
6. Alzheimer's disease: 121,499
7. Diabetes: 87,647
8. Nephritis, nephrotic syndrome, and nephrosis: 51,565
9. Influenza and pneumonia: 49,783
10. Intentional self-harm (suicide): 47,511

Key findings of the National Diabetes Statistics Report 2020 regarding incidence and prevalence include (CDC, 2020d ;2020e; 200f):

- 34.2 million Americans—just over 1 in 10—have diabetes.
- 88 million American adults—approximately 1 in 3—have prediabetes.
- New diabetes cases were higher among non-Hispanic blacks and people of Hispanic origin than non-Hispanic Asians and non-Hispanic whites.
- For adults diagnosed with diabetes:
  - New cases significantly decreased from 2008 through 2018.
  - The percentage of existing cases was highest among American Indians/Alaska Natives.
  - 15% were smokers, 89% were overweight, and 38% were physically inactive.
  - 37% had chronic kidney disease (stages 1 through 4); and fewer than 25% with moderate to severe chronic kidney disease (stage 3 or 4) were aware of their condition.
- New diagnosed cases of type 1 and type 2 diabetes have significantly increased among US youth.
- For ages 10 to 19 years, incidence of type 2 diabetes remained stable among non-Hispanic whites and increased for all others, especially non-Hispanic blacks.
- The percentage of adults with prediabetes who were aware they had the condition doubled between 2005 and 2016, but most continue to be unaware.

More people are developing type 1 and type 2 diabetes during youth, and racial and ethnic minorities continue to develop type 2 diabetes at higher rates. Likewise, the proportion of older people in our nation is increasing, and older people are more likely to have a chronic disease like diabetes. By addressing diabetes, many other related health problems can be prevented or delayed.

Prevalence and incidence according to age, race, and ethnicity

Age

According to the National Diabetes Statistics Report 2020, (CDC, 2020c; 2020d;2020e):

- About 34.2 million people of all ages had diabetes mellitus.
- The percentage of adults (18 years of age or older) with diabetes increased with age.
- About 34.1 million adults 18 years of age or older) had diabetes.
- The highest percentage was 26.8% among persons 65 years of age or older.
- An estimated 4.9 million adults between the ages of 18 and 44 had diabetes.
- An estimated 14.8 million people between the ages of 45 and 64 had diabetes.
- An estimated 14.3 million people over the age of 65 had diabetes.

Incidence and Trends among Children and Adolescents.

According to the National Diabetes Statistics Report 2020 (CDC, 2020c; 2020d; 2020e):

- 18,291 children and adolescents younger than age 20 years with type 1 diabetes.
- 5,758 children and adolescents age 10 to 19 years with type 2 diabetes.
- During 2011–2015, non-Hispanic Asian and Pacific Islander children and youth had the largest significant increases in incidence of type 1 diabetes.
- During 2011–2015, non-Hispanic Asian and Pacific Islander children and youth had the largest significant increases in incidence of type 1 diabetes.
- Among US children and adolescents aged 10 to 19 years (CDC, 2020c; 2020d; 2020e):
- For the entire period 2002–2015, overall incidence of type 2 diabetes significantly increased.
- During the 2002–2010 and 2011–2015 periods, changes in incidence of type 2 diabetes were consistent across race/ethnic groups. Specifically, incidence of type 2 diabetes remained stable among non-Hispanic whites and significantly increased for all others, especially non-Hispanic blacks.

Evidence-based practice! Research data shows that the number of younger people with diabetes is significant and continues to increase (CDC, 2020c; 2020d; 2020e). It is therefore essential that nurses identify those at risk and provide patient/family education regarding risk factors for the disease and how to modify these risk factors as appropriate.

Racial and ethnic differences (Prevalence of diagnosed diabetes)

Among the US population overall, crude estimates for 2018 were (CDC, 2020c; 2020d; 2020e):

- 26.9 million people of all ages—or 8.2% of the US population—had diagnosed diabetes.
- 210,000 children and adolescents younger than age 20 years—or 25 per 10,000 US youths— had diagnosed diabetes. This includes 187,000 with type 1 diabetes.
- 1.4 million adults aged 20 years or older—or 5.2% of all US adults with diagnosed diabetes—reported both having type 1 diabetes and using insulin.
- 2.9 million adults aged 20 years or older—or 10.9% of all US adults with diagnosed diabetes—started using insulin within a year of their diagnosis.

Among US adults aged 18 years or older, age-adjusted data for 2017–2018 indicated the following (CDC, 2020c; 2020d; 2020f):

- Prevalence of diagnosed diabetes was highest among American Indians/Alaska Natives (14.7%), people of Hispanic origin (12.5%), and non-Hispanic blacks (11.7%), followed by non-Hispanic Asians (9.2%) and non-Hispanic whites (7.5%).
- American Indians/Alaska Natives had the highest prevalence of diagnosed diabetes for women (14.8%).
- American Indian/Alaska Native men had a significantly higher prevalence of diagnosed diabetes (14.5%) than non-Hispanic black (11.4%), non-Hispanic Asian (10.0%), and non-Hispanic white (8.6%) men.
- Among adults of Hispanic origin, Mexicans (14.4%) and Puerto Ricans (12.4%) had the highest prevalence, followed by Central/South Americans (8.3%) and Cubans (6.5%).
- Among non-Hispanic Asians, Asian Indians (12.6%) and Filipinos (10.4%) had the highest prevalence, followed by Chinese (5.6%). Other Asian groups had a prevalence of 9.9%.
- Among adults, prevalence varied significantly by education level, which is an indicator of socioeconomic status. Specifically, 13.3% of adults with less than a high school education had diagnosed diabetes versus 9.7% of those with a high school education and 7.5% of those with more than a high school education.

Prevalence of Prediabetes in Adults

Data regarding prediabetes in adults show that (CDC, 2020c; 2020d; 2020e):

- An estimated 88 million adults aged 18 years or older had prediabetes in 2018.
- Among US adults aged 18 years or older, crude estimates for 2013–2016 were: 34.5% of all US adults had prediabetes, based on their fasting glucose or A1C level (Table 3).
- 10.5% of adults had prediabetes based on both elevated fasting plasma glucose and A1C levels.
- 15.3% of adults with prediabetes reported being told by a health professional that they had this condition.
- Among US adults aged 18 years or older, age-adjusted data for 2013–2016 indicated:

- A higher percentage of men (37.4%) than women (29.2%) had prediabetes.
- Prevalence of prediabetes was similar among all racial/ethnic groups and education levels.

Incidence of Newly Diagnosed Diabetes in Adults

Among US adults aged 18 years or older, crude estimates for 2018 were (CDC, 2020c; 2020d; 2020e):

- 1.5 million new cases of diabetes—or 6.9 per 1,000 persons—were diagnosed.
- Compared to adults aged 18 to 44 years, incidence rates of diagnosed diabetes were higher among adults aged 45 to 64 years and those aged 65 years and older.
- Among US adults aged 18 years or older, age-adjusted data for 2017–2018 indicated that non-Hispanic blacks (8.2 per 1,000 persons) and people of Hispanic origin (9.7 per 1,000 persons) had a higher incidence compared to non-Hispanic whites (5.0 per 1,000 persons).

Evidence-based practice! The rate of new cases of diabetes in youths younger than 20 years of age increased in the US between 2002 and 2015, with a 4.8% increase per year for type 2 diabetes and a 1.9% increase per year for type 1 diabetes (CDC, 2020g). These findings indicate that education regarding prevention and recognition of diabetes in youth must be provided with increased effectiveness, as well as aggressive efforts to prevent development whenever possible.

Self-Assessment Quiz Question #1

Among U. S. adults 18 years of age and older indicated that prevalence of diagnosed diabetes was highest among:

a. American Indians/Alaska Natives.
b. People of Hispanic origin.
c. Non-Hispanic blacks.
d. Non-Hispanic Asians.

FINANCIAL AND SOCIETAL IMPACT OF DIABETES MELLITUS

The momentous financial and societal impact of diabetes continues to increase at an alarming rate. Federal, state, and local governments (and ultimately the US taxpayer) bear the brunt of costs related to diabetes. The American Diabetes Association (ADA) gives as an example that Medicare's diabetes-related burden increased as the prevalence of diabetes increased (O'Connell & Manson, 2019).

According to the CDC, diabetes is the most expensive chronic condition in the US. A summary of these expenses includes (CDC, 2021c):

- The total annual cost of diabetes is $327 billion. An additional $90 billion is spent on reduced productivity.
- One dollar out of every four dollars in US healthcare costs is spent on caring for people with diabetes.
- The total economic cost of diabetes rose 60% from 2007 to 2017.
- Sixty-one percent of diabetes costs are for people 65 years of age or older. These costs are mainly paid by Medicare.
- An estimated 48% to 64% of lifetime medical costs for a person with diabetes are for complications related to diabetes, such as heart disease and stroke.

Medical costs are not the only costs related to diabetes. The stress of chronic illness can impact interpersonal relationships. It can impact the person's ability to work, which may have significant economic impact on the family income. Financial burdens are inter-related with psychological issues that impact persons dealing with diabetes. Medical bills, loss of work time, and inability to actively participate in work and social activities can all have s significant adverse impact on patients, their families, and their employers. Dealing with a chronic illness can lead to significant stress, which can adversely impact ability to function effectively at work, home, and school and interfere with interpersonal relationships. Therefore, the costs of diabetes include monetary, societal, and interpersonal factors. The impact on society includes overextended health services, increased public assistance programs for financially stressed families, and the societal burden of mental health care and rehabilitation for those with complications resulting from diabetes (CDC, 2021c; O'Connell, 2019).

The cost of medications used in the treatment of diabetes continues to increase at alarming rates. The price of insulin, for example, has increased 1,200% since 1996 (Kumok, 2021).

The estimated economic cost of glucose-lowering drugs is $57.6 billion per year in the U.S. in 2015–2017 (15–20% of the estimated annual cost for all prescription drugs in the U.S.). The cost of such drugs can cause a financial burden and have a devastating impact on people without health insurance and people whose insurance imposes high deductibles—the people least able to afford the high cost of diabetes drugs. This means that the high cost of diabetes drugs has important implications for both public policy and social justice (Taylor, 2020a).

Members of an Insulin Access and Affordability Working Group (Cefalu, (2018) made the following recommendations to help lower the cost of insulin. These recommendations may also be applied to other drugs used in the treatment of diabetes. Examples include (Cefalu, (2018):

- Providers, pharmacies, and insurers should discuss the cost of insulin preparations (and other drugs) with patients to help them understand the advantages, disadvantages, and financial impact of potential insulin preparations and those of other diabetes medications.
- Providers should prescribe the lowest-priced medications that effectively and safely achieve treatment goals.
- Researchers should study the comparative effectiveness and cost-effectiveness of the various insulins.
- Organizations such as the (ADA) should:
  - Advocate for access to affordable medications for all people who have diabetes.
  - Develop and regularly update clinical guidelines or standards of care based on scientific evidence for prescribing medications.
  - Make information about the advantages, disadvantages, and financial implications of medications easily available to people with diabetes.

NORMAL ANATOMY AND PHYSIOLOGY OF THE PANCREAS

It is not possible to comprehend the pathophysiology of diabetes without an understanding of normal pancreatic functioning. The pancreas is a triangular shaped organ, about six to 10 inches long, located in the curve of the duodenum (the first portion of the small intestine from the stomach to the jejunum). The pancreas plays critical roles in both the digestive process and the process that regulates blood sugar (The Pancreas Center, n.d.; Willis, 2018).

The pancreas is surrounded by various other organs: the small intestine, liver, and spleen. It has three sections. The wide part, referred to as the head of the pancreas, is positioned toward the center of the abdomen. The middle section is called the neck and the body of the pancreas. The thin end of the organ is referred to as the tail and extends to the left side (Johns Hopkins Medicine, n.d.; The Pancreas Center, n.d.; Willis, 2018).

The pancreas is surrounded by several major blood vessels: the superior mesenteric artery, the superior mesenteric vein, the portal vein, and the celiac axis, which supply blood to the pancreas and many other abdominal organs (The Pancreas Center, n.d.).

Exocrine function of the pancreas

The pancreas contains exocrine glands, which produce enzymes that are essential to the process of digestion (The Pancreas Center, n.d.). Acinar cells make up most of the pancreas and are responsible for the regulation of the exocrine functions of the gland (Willis, 2018).

Below is a summary of the exocrine function of the pancreas (The Pancreas Center, n.d.):

- Food enters the stomach.
- Pancreatic juices flow into a system of ducts that terminate in the primary pancreatic duct.
- The pancreatic duct joins with the common bile duct to form the ampulla of Vater located in the duodenum.
- The common bile duct produces bile. Pancreatic juices and bile flow into the duodenum and facilitate the digestion of fats, carbohydrates, and proteins.

Endocrine function of the pancreas

The endocrine function of the pancreas focuses on hormone secretion. The endocrine cells of the pancreas are islet cells, or islets of Langerhans. These islet cells exist as clusters of cells that are scattered among the acinar cells. They consist of alpha, beta, and delta cells, which produce the following essential hormones (Johns Hopkins Medicine, n.d.a.; The Pancreas Center, n.d.; Willis, 2018):

- Glucagon: Glucagon is produced by the alpha cells. It raises blood glucose levels by causing the breakdown of glycogen to glucose.
- Insulin: Insulin is produced by beta cells. Insulin's primary function is to reduce blood glucose levels by triggering the conversion of glucose to glycogen.
- Somatostatin: Delta cells are responsible for the production of somatostatin. Somatostatin inhibits the release of growth hormone (GH), corticotrophin, and some other hormones.

Under normal conditions, a small amount of insulin is constantly secreted by the pancreas. Insulin secretion increases in response to increases in blood glucose levels. Insulin triggers the conversion of glucose to glycogen. Glycogen is stored primarily in the liver and in skeletal muscle (Johns Hopkins Medicine, n.d.; The Pancreas Center, n.d.; Willis, 2018).

When blood glucose levels are low such as between meals or during or immediately following exercise, alpha cells are stimulated to release glucagon. Glucagon causes the liver to release glycogen, which is then converted to glucose. Glucose travels through the blood stream to the cells of the body where it is converted to energy to maintain body functioning (Johns Hopkins Medicine, n.d.a.; The Pancreas Center, n.d.; Willis, 2018).

Maintaining normal blood glucose levels is essential to the ability of key organs—including the brain, liver, and kidneys—to function properly (Johns Hopkins Medicine, n.d; The Pancreas Center, n.d.; Willis, 2018). However, the normal blood glucose range is rather narrow. Blood glucose levels are regulated by an internal feedback mechanism that involves the pancreas and the liver (Willis, 2018).

The following blood glucose test results indicate normal findings (Pagana et al., 2019).

From the ages of two to adulthood:

- Fasting (no caloric intake for at least eight hours): 70 to 110 mg/dL or <6.1 mmol/L.
- Casual (any time of day regardless of food intake): <200 mg/dL (11.1 mmol/L).

Children <2 years of age:

- 60 to 100 mg/dL or 3.3 to 5.5 mmol/L.

When normal blood glucose levels are not maintained, the impact can be devastating on an individual's health and wellness. To effectively provide healthcare services for persons who have diabetes, healthcare professionals must understand both normal pancreatic functioning and the pathophysiology associated with the disease. To do this, it is essential to differentiate among the different types of diabetes, all of which have different pathologies.

Self-Assessment Quiz Question #2

The endocrine function of the pancreas focuses on:

a. The production of enzymes essential to the process of digestion.
b. The production of bile.
c. Hormone secretion.
d. Alpha cell production of insulin.

THE DIFFERENT TYPES OF DIABETES MELLITUS

Health care professionals and health care consumers are arguably most familiar with type 1 and type 2 diabetes. But there are other types of diabetes with which nurses must be familiar (Rebar et al., 2019).

- Type 1: The body is unable to produce adequate amounts of insulin.
- Type 2: There is resistance to insulin or abnormal insulin secretion.
- Secondary diabetes: This form of diabetes develops because of, or secondary to, another disease or condition.
- Gestational diabetes: This occurs in pregnant women who have never had diabetes.

The primary focus of this educational program is on type 1 and type 2 diabetes, but the issue of other types of diabetes is also quite important. Therefore, it will be discussed before delving into type 1 and type 2 diabetes.

The term secondary diabetes refers to specific types of diabetes because of other causes (ADA, 2021b). Some of the most common causes of secondary diabetes include (Khardori, 2021c; Rebar et al., 2019):

- Physical or emotional stress, which may cause prolonged increases in levels of the stress hormone cortisol, epinephrine, glucagon, and growth hormone (GH). These increases, in turn, raise the blood glucose level and place more demands on the pancreas.
- Use of adrenal corticosteroids, hormonal contraceptives, and other types of drugs that antagonize the effects of insulin.
- Diseases of the pancreas that destroy pancreatic beta cells, such as pancreatic cancer, pancreatitis, and cystic fibrosis.
- Hormonal syndromes that interfere with the secretion of insulin, such as pheochromocytoma.
- Hormonal syndromes that cause peripheral insulin resistance, such as Cushing syndrome.
- Some medications, such as estrogens, phenytoin, and glucocorticoids.

Gestational diabetes

Gestational diabetes occurs in women who have never had diabetes mellitus but have high blood glucose levels during pregnancy (Mayo Clinic, 2020c). This condition develops in a fairly high number of women. In the US, an estimated 10% of women who are pregnant develop gestational diabetes (Dansinger, 2019a). Healthcare professionals are becoming increasingly concerned about the occurrence of gestational diabetes. Thus, the following more detailed information is provided.

Etiology of Gestational Diabetes
As a result of hormonal changes associated with pregnancy, nearly all women experience some amount of impaired glucose intolerance. Although blood sugar may be higher than normal, it is not high enough to be diagnosed as diabetes mellitus. During the third trimester of pregnancy, these hormonal changes put women at higher risk for gestational diabetes. Hormonal changes can interfere with the appropriate action of insulin, which leads to insulin resistance (American Diabetes Association, 2021d; Dansinger, 2019a).

During pregnancy, certain placental hormones help to shift nutrients from the mother to the fetus. Other placental hormones help prevent hypoglycemia in the pregnant woman. As pregnancy advances, such hormones can lead to progressive impaired glucose intolerance (elevated blood glucose levels). Usually, the woman's pancreas is able to compensate for these elevated levels by producing about three times the normal amount of insulin. If the pancreas is not able to produce adequate amounts of insulin, blood glucose levels rise, and gestational diabetes occurs (Dansinger, 2019a).

Risk Factors for Development of Gestational Diabetes
Several factors increase the risk for the development of gestational diabetes (Dansinger, 2019a; Mayo Clinic, 2020c):

- Being overweight or obese
- Being a member of a high-risk ethnic group such as Hispanic, Black, Native American, African American, Pacific Islander, Alaska native, Native American, or Asian
- Being older than 25 years of age
- Having impaired glucose tolerance or impaired fasting blood glucose levels. This means that blood glucose levels are high but not high enough to be diagnosed as diabetes mellitus.
- Having gestational diabetes during a previous pregnancy
- Having a family history of gestational diabetes
- Having polycystic ovary syndrome or other condition that is associated with insulin abnormalities
- Previously giving birth to a baby that weighed over 9 pounds
- Previously giving birth to a stillborn baby or one that had birth defects
- Having had a miscarriage
- Having hypertension, elevated cholesterol, or heart disease

Complications
Gestational diabetes may increase the risk of (Mayo Clinic, 2020c):

- Hypertension
- Preeclampsia
- Development of diabetes in the future
- Need for a surgical delivery (C-section)

Diagnosis of Gestational Diabetes
The ADA (2021b) has published the following recommendations for gestational diabetes mellitus screening.

- Test for undiagnosed prediabetes and diabetes at the first prenatal visit in those with risk factors using standard diagnostic criteria.
- Test for gestational diabetes mellitus at 24-28 weeks of gestation in pregnant women not previously found to have diabetes.
- Test women with gestational diabetes mellitus for prediabetes or diabetes at 4-12 weeks postpartum, using the 75-g oral glucose tolerance test and clinically appropriate nonpregnancy diagnostic criteria.
- Women with a history of gestational diabetes mellitus should have lifelong screening for the development of diabetes or prediabetes at least every three years.
- Women with a history of gestational diabetes mellitus found to have prediabetes should receive intensive lifestyle interventions and/or metformin to prevent diabetes.

The steps of an oral glucose tolerance include (Pagana et al., 2018):

1. Obtain fasting blood and urine specimens. The patient should fast for 12 hours before the test.
2. Administer a prescribed oral glucose solution of 75-100 g for pregnant women. Note that the ADA recommends using 75 g solution.
3. Instruct patient to drink the entire glucose solution.
4. Instruct patient not to eat or drink anything except water during the testing period.
5. Obtain a venous blood sample at 30 and 60 minutes and then hourly.
6. Collect urine specimens hourly.
7. Monitor the patient for dizziness, sweating, and weakness.

Screening tests may vary slightly depending on the patient's healthcare provider. General results include (Mayo Clinic, 2020c; Pagana et al., 2019):

- Initial glucose challenge test: This challenge test is done first. It is a one-hour test that involves drinking a glucose solution and having blood glucose levels assessed. A blood sugar level of 10 mg per deciliter (mg/dL) or 10.6 millimoles per liter indicates gestational diabetes. A blood glucose level below 140 mg/dL is usually considered normal. A higher-than-normal blood glucose level means that the glucose tolerance test should be performed.
- Follow-up glucose tolerance testing: If at least two of the blood glucose readings are higher than normal, a diagnosis of gestational diabetes is made.

Management of Gestational Diabetes
The goal of treatment for gestational diabetes is to keep blood glucose levels equal to those of pregnant women who do not have gestational diabetes (ADA, 2021d).

Management of gestational diabetes includes the following initiatives (ADA,2021d; Dansinger, 2019a; Mayo Clinic, 2020c; WebMD, 2017a):

- Teach patients and family members (as appropriate) how to monitor blood glucose levels. Monitoring should be done four times per day, before breakfast and two hours after meals. Some patients require checking glucose levels before meals as well.
- Teach patients and family members (as appropriate) how to monitor urine for ketones.
- Initiate a dietary consultation for the development of an appropriate diet. Explain to patients and family members the importance of following prescribed dietary plans. A healthy diet focuses on fruits, vegetables, whole grains, and lean proteins.
- Help patients to develop medically approved exercise regimens.
- Teach patients to monitor their weight.
- If needed, teach patients about any hypoglycemic medications, including insulin, that are prescribed.
- Monitor blood pressure and initiate prescribed actions such as exercise and reduction of salt intake. As appropriate, teach patient and family members how to monitor blood pressure.
- Teach patients to keep a careful written record of their blood glucose levels and results of urine monitoring—including the time readings were obtained and how readings relate to dietary intake, exercise, and stress—and blood pressure readings if monitoring blood pressure at home. Instruct patients to bring a copy of these written records with them to all health care appointments.
- Teach patients stress reduction techniques such as meditation and deep breathing exercise as appropriate.

Most pregnant women are concerned about the possible effects of gestational diabetes on their unborn children. Fortunately, gestational diabetes affects the mother relatively late in her pregnancy, when the majority of the baby's organs have been formed, but while the baby is still growing. Gestational diabetes is not associated with the types of birth defects in infants whose mothers had diabetes mellitus before pregnancy (Dansinger, 2019a; Mayo Clinic, 2020c).

Unfortunately, untreated, or inadequately controlled gestational diabetes can harm the fetus. The pancreas works "overtime" to

produce insulin in the presence of gestational diabetes, but the insulin does not reduce blood glucose levels. Insulin does not cross the placenta, but glucose does. Thus, the unborn child is exposed to high blood glucose levels. In response to these elevated levels, the unborn baby produces additional insulin, receives more energy, and stores the "extra" energy as fat. Additional stores of fat can lead to macrosomia, a condition in which the baby is abnormally large before birth. Adverse effects of macrosomia include damage to the baby's shoulders during birth, low blood glucose levels because of the extra insulin production, respiratory distress, and jaundice. These infants are also at higher risk for obesity as children and at risk for type 2 diabetes as adults. Thus, it is essential that all pregnant women be screened for gestational diabetes and, if a diagnosis of diabetes is found, treated appropriately and promptly (Dansinger, 2019a; Mayo Clinic, 2020c).

About six weeks after delivery, the mother's blood glucose levels usually return to normal because the placenta, which was responsible for producing the hormones that led to insulin resistance, is no longer in the body. Blood glucose levels will be monitored to ensure that they have returned to normal. Some health care providers recommend an oral glucose tolerance test 6 to 12 weeks after delivery to screen for diabetes mellitus (Dansinger, 2019a; Mayo Clinic, 2020c).

Evidence-based practice! Women who have had gestational diabetes have a 50% chance of developing type 2 diabetes within 10 to 20 years of delivery (Dansinger, 2019a). Therefore, they should work to reduce this risk by maintaining an ideal body weight, following a healthy diet, and exercising regularly.

Self-Assessment Quiz Question #3

ADA recommendations for gestational diabetes screening include all of the following EXCEPT:

a. Pregnant women not previously found to have diabetes should be screened for gestational diabetes at the first prenatal visit.
b. Women with a history of gestational diabetes mellitus should have lifelong screening for the development of diabetes at least every three years.
c. A blood glucose level of 140 mg/dL is considered normal.
d. The initial glucose challenge test is done before the glucose tolerance test.

TYPE 1 DIABETES: ETIOLOGY AND PATHOPHYSIOLOGY

Type 1 diabetes occurs when the beta cells of the pancreas are destroyed or suppressed. This results in failure of the pancreas to release insulin and inadequate transport of glucose (Rebar et al., 2019). The prevalence of diagnosed type 1 diabetes in 2016 was 0.55%, or 1.3 million adults. This is significantly less than the prevalence of diagnosed type 2 diabetes, which was 8.6%, or 21.0 million adults (Morr, 2018).

Immune mediated types of type 1 diabetes, an autoimmune attack on beta cells occurs. This results in an inflammatory response in the pancreas (insulitis). Antibodies may be present for considerable time before the development of symptoms. In fact, by the time the disease is symptomatic, 80% of the beta cells are deactivated. Some experts believe that the beta cells are not destroyed, but instead they are disabled and may be able to be reactivated (Rebar et al., 2019).

Healthcare Professional Consideration: Type 1 diabetes is divided into idiopathic and immune-mediated types. In idiopathic diabetes (referred to as type 1b diabetes) there is nearly complete insulin deficiency. There is no evidence of autoimmunity (Kalyani, 2017; Rebar et al., 2019). Healthcare professionals must be aware of the various types of diabetes to recognize them and to provide safe and appropriate care. Screening and patient education are critical elements of care. Clinical Practice Guidelines are constantly being updated and should be followed for effective care. The Centers for Medicare & Medicaid Services (CMS) sets reimbursement rates for Medicare providers and generally pays them according to approved guidelines.

Latent autoimmune diabetes (LADA)

Latent autoimmune diabetes in adults (LADA) is characterized by a slow progression of autoimmune reaction against the pancreas. Some experts recognize LADA as a form of type 1 diabetes, while others do not. LADA occurs because of an inadequate production of insulin. However, LADA does not require insulin administration for several months up to years after diagnosis is made (Castro, 2021).

Following are characteristics of LADA (Castro, 2021):

- People are usually over the age of 30 when the disease is diagnosed.
- The pancreas produces some insulin initially
- LADA is often misdiagnosed with type 2 diabetes because the patients are older at diagnosis and some insulin production is still evident.
- Initially, LADA is managed with diet, weight reduction as needed, exercise, and oral medications as needed. But insulin is eventually needed because the pancreas gradually loses its ability to produce insulin.

Research is underway regarding LADA and the best way to manage treatment. Health care providers with expertise in all forms of diabetes should direct treatment initiatives (Castro, 2021).

TYPE 2 DIABETES: PATHOPHYSIOLOGY AND ETIOLOGY

Type 2 diabetes is an impairment of the way the glucose is regulated and used by the body. A chronic condition, type 2 diabetes can lead to disorders of the circulatory, nervous, and immune system (Mayo Clinic, 2021g). The following are general characteristics of type 2 diabetes (Mayo Clinic, 2021g Santos-Longhurst, 2020):

- The disease is caused by a combination of insulin resistance and insulin deficiency. Some people develop the disease predominantly because of insulin resistance, whereas others are affected predominantly by deficient insulin secretion but have little insulin resistance.
- About 90% to 95% of people with diabetes have type 2 diabetes.
- Type 2 diabetes has a strong hereditary component.
- Its onset is typically slow and insidious
- Type 2 diabetes is significantly less common in children and young adults than in older adults. But the number of children with type 2 diabetes is increasing because of the prevalence of overweight children.
- Although some people with this type of diabetes may need insulin, they are still categorized as having type 2 diabetes.

Pathophysiology

Under normal conditions, insulin molecules bind to body cell preceptors. Insulin activates cell portals to open allowing glucose to enter the cells where it is then converted to energy. Insulin decreases the amount of glucose in the blood. As the blood glucose level decreases, so does the amount of insulin secreted by the pancreas (Mayo Clinic, 2021g).

In type 2 diabetes, the cells develop a resistance to insulin. This inhibits the ability of glucose to enter the cells. If glucose cannot enter the cells, the cells fail to receive enough energy. Blood glucose levels increase, and organs are damaged throughout the body (Mayo Clinic, 2021g).

Etiology

Type 2 diabetes is mainly the result of two interrelated issues (Mayo Clinic, 2021g):

- Muscle, fat, and hepatic cells become insulin-resistant and are unable to function efficiently.
- The pancreas is not able to manufacture adequate amounts of insulin to appropriately manage blood glucose levels.

Several environmental and lifestyle factors play a role in the development of type 2 diabetes. The aging process, alcohol consumption, smoking, lack of exercise, and obesity have all been found to be related to the development of diabetes (Mayo Clinic, 2021g). Obesity seems to have an impact on disease development. Obesity, especially visceral fat obesity, leads to a decrease in muscle mass and an increase in insulin resistance (Mayo Clinic, 2021g; Taylor, 2020b).

Research has shown that a number of factors contribute to an increase in the amount of visceral fat in the body (Mayo Clinic, 2021g; Taylor, 2020b):

- Disorders of the nervous or endocrine systems that lead to an increase in cortisol and abnormalities in the secretion of sex hormones.
- Smoking
- Increased intake of alcohol
- Overeating, particularly an excessive intake of simple sugars
- Decreased energy consumption because of insufficient exercise
- Genetic influences
- The aging process

PREDIABETES

Prediabetes is sometimes referred to as a "wake-up call" that the development of diabetes may be imminent. About 84 million Americans over the age of 20 have prediabetes, but 90% of these people do not know that they have it. (Dansinger, 2019b; Mayo Clinic, 2020d). Lifestyle modifications—including weight loss, implementing an exercise regimen, and following a healthy diet—are strongly recommended to prevent prediabetes from progressing to type 2 diabetes (Dansinger, 2019b; Mayo Clinic, 2020d).

With a diagnosis of prediabetes, patients must be counseled regarding diet, exercise, and weight loss. Patients may also need antidiabetic agents (Mayo Clinic, 2020d).

Healthcare Professional Consideration: Prediabetes is a significant risk factor for developing type 2 diabetes and cardiovascular disease (Dansinger, 2019b; Mayo Clinic, 2020d). Risk factors for the risk of developing prediabetes are the same as for type 2 diabetes, which will be discussed later in this education program.

SCREENING GUIDELINES

Type 1 diabetes

At this time, there is a deficit of accepted and clinically validated screening programs outside of research settings. The ADA recommends considering referring relatives of those with type 1 diabetes for islet autoantibody testing for risk assessment in the setting of a clinical research study. (ADA, 2021b).

Current ADA (2021b) recommendations include:

- Screening for type 1 diabetes risk with a panel of islet autoantibodies is currently recommended in the setting of a research trial or can be offered as an option for firs-degree family members of a proband with type 1 diabetes. The proband is the first individual to be studied in a family.
- Persistence of autoantibodies is a risk factor for clinical diabetes and may serve as an indication for intervention in the setting of a clinical trial.

Prediabetes and type 2 diabetes

The 2021 ADA screening guidelines list the same recommendations for both prediabetes and type 2 diabetes. These include (ADA, 2021b):

- Screening for prediabetes and type 2 diabetes with an informal assessment of risk factors or validated tools should be considered in asymptomatic adults.
- Testing for prediabetes and/or type 2 diabetes in asymptomatic people should be considered in adults of any age with overweight or obesity (BMI ≥25 kg/m2 or ≥23 kg/m2 in Asian Americans) and who have one or more additional risk factors for diabetes
- Testing for prediabetes and/or type 2 diabetes should be considered in women with overweight or obesity planning pregnancy and/or who have one or more additional risk factor for diabetes.
- For all people, testing should begin at age 45 years.
- If tests are normal, repeat testing carried out at a minimum of 3-year intervals is reasonable, sooner with symptoms.
- To test for prediabetes and type 2 diabetes, fasting plasma glucose, 2-h plasma glucose during 75-g oral glucose tolerance test, and A1C are equally appropriate.
- In patients with prediabetes and type 2 diabetes, identify and treat other cardiovascular disease risk factors.
- Risk-based screening for prediabetes and/or type 2 diabetes should be considered after the onset of puberty or after 10 years of age, whichever occurs earlier, in children and adolescents with overweight (BMI ≥85th percentile) or obesity (BMI ≥95th percentile) and who have one or more risk factor for diabetes.
- Patients with HIV should be screened for diabetes and prediabetes with a fasting glucose test before starting antiretroviral therapy, at the time of switching antiretroviral therapy, and three to six months after starting or switching antiretroviral therapy. If initial screening results are normal, fasting glucose should be checked annually.

Risk factors for the development of type 1 diabetes

A number of risk factors are associated with the development of type 1 diabetes (American Heart Association, 2021; Mayo Clinic, 2020a):

- Family history
- Exposure to a viral illness
- Presence of autoantibodies
- Geography (Some countries, including Finland and Sweden, have higher rates of type 1 diabetes)

Risk factors for the development of type 2 diabetes

There are several risk factors related to the development of type 2 diabetes mellitus. These risk factors are classified as nonmodifiable and modifiable.

Nonmodifiable risk factors

The following risk factors are nonmodifiable; in other words, they cannot be changed (American Heart Association, 2021; CDC, 2021b; Mayo Clinic, 2020a):

- Age: Risk increases with age. This increase seems to begin at the age of 40
- Race and ethnicity: Some racial and ethnic groups have a higher incidence of type 2 diabetes than others. These include:
  - African Americans
  - Asian-Americans
  - Latino/Hispanic-Americans
  - Native Americans
  - Pacific Islander descent
- Family history: A person's chances of developing type 2 diabetes increases if immediate or even extended family members have the disease.
- History of gestational diabetes: Women who have gestational diabetes have a greater risk of developing prediabetes and type 2 diabetes. Having given birth to a baby that weighs more than 9 pounds also increases risk.

Healthcare Professional Consideration: Although research has shown that certain risk factors cannot be modified, healthcare professionals must still include them in patient/family education and be aware of such factors that increase the risk for development of diabetes.

Modifiable risk factors

The following risk factors are those that can be modified or changed to decrease risk of developing type 2 diabetes.

Overweight/Obesity

Being obese or overweight is one of the greatest risk factors for type 2 diabetes. Because obesity is increasing among children and adolescents, type 2 diabetes is affecting more and more young people (American Heart Association, 2021; Taylor, 2020b).

The body mass index, or BMI, is the standard to determine overweight and obesity. BMI is a person's weight in kilograms divided by the square of height in meters. According to CDC, the following BMI measures indicate underweight, normal, overweight, and obesity (CDC, 2021a):

- Underweight: BMI is < 18.5
- Normal: BMI is 18.5 to <25
- Overweight: BMI is 25.0 to <30
- Obese: BMI is 30.0 or higher

Fortunately, even a small loss of weight can have a significant impact on health and longevity. Lifestyle modifications to achieve weight loss include the following:

- Reduction in caloric intake: Patients should work with their health care providers, including a clinical dietician as necessary, to implement a well-balanced diet that will facilitate weight loss (Ignatavicius et al., 2018).
- Increase in physical activity: The American Heart Association (2021) and CDC, 2020a) publishes the following physical activity guidelines for adult Americans:
  - Two hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity every week and muscle strengthening activities that work all major muscle groups two or more days a week OR
  - Seventy-five minutes of vigorous-intensity aerobic activity every week and muscle strengthening activities that work all major muscle groups two or more days a week.

Moderate-intensity aerobic activity is defined as exercising hard enough to increase heart rate and break a sweat. Examples include walking fast, water aerobics, riding a bicycle on level ground, and pushing a lawn mower. Vigorous-intensity aerobic activity is defined as exercising hard enough to breathe hard and fast and increase heart rate significantly. Examples include jogging, running, swimming laps, riding a bicycle rapidly or on hills, and playing basketball. Physical activity can be spread out so that it is not done all at once. However, physical activity should be sustained for at least 10 minutes at a time (American Heart Association, 2021; CDC, 2021b).

Elevated Blood Glucose

An elevated blood glucose level significantly increases the risk of diabetes as well as for cardiovascular disease and stroke. The American Diabetes Association recommends using one of three testing methods (American Diabetes Association, 2021b; National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), 2018e):

1. A1C test
2. Fasting plasma glucose (FPG)
3. Oral glucose tolerance test (OGTT)

Hypertension

Hypertension is a modifiable risk factor for diabetes as well as for cardiovascular disease and stroke. Hypertension is defined as a consistent systolic pressure of 130 mmHg or higher or diastolic pressure of 80 mmHg or higher. For persons who do not have diabetes, blood pressure should be evaluated at each regular health care provider visit or at least once every two years if it is less than 120/80 mmHg. For patients who have diabetes, blood pressure should be measured at each regular health care provider visit or as often as needed (CDC, 2020b; Ignatavicius et al., 2018).

Abnormal Lipid Metabolism

Abnormalities in cholesterol levels can contribute not only to cardiovascular disease but also to the development of diabetes mellitus. The desired goals of cholesterol levels for adults are as follows (Mayo Clinic, 2021a):

- LDL: below 70 mg/dL for people who have heart disease or diabetes; below 100 mg/dL for people at risk of heart disease; and 100 to 129 mg/dL near optimal if there is no heart disease but high if there is heart disease.
- HDL: greater than 60 mg/dL
- Triglycerides: less than 150 mg/dL
- Total cholesterol: less than 200 mg/dL

Physical Inactivity
Physical inactivity contributes to overweight and obesity, cardiovascular disease, malignancies, diabetes, and many other adverse medical conditions. Participating in a regular physical exercise routine can increase insulin sensitivity, improve lipid levels, reduce blood pressure, reduce weight, lower the risk of cardiovascular disease, and improve blood glucose management in type 2 diabetes (Ignatavicius et al., 2018).

Smoking
Smoking is a significant risk factor for the development of type 2 diabetes and makes the disease harder to control after its development. Smokers are 30% to 40% more likely to develop type 2 diabetes than nonsmokers. People who smoke are more likely than nonsmokers to have trouble managing the disease (CDC, 2021e).

Medications
Such medications as glucocorticoids, thiazide diuretics, and atypical antipsychotics increase the risk of diabetes (American Diabetes Association, 2021b).

Healthcare Professional Consideration: Healthcare professionals need to be aware of the significance of metabolic syndrome. Metabolic syndrome is a group of conditions (hypertension, elevated blood glucose levels, excess amounts of body fat around the waist, and abnormal cholesterol level) that exist in conjunction with one another and increase the risk of cardiac disease, stroke, and diabetes. Taking steps to alter the impact of modifiable risk factors for diabetes can delay or possibly prevent the occurrence of serious health conditions (Mayo Clinic, 2020a). Assessing diabetic patients should include indicators for metabolic syndrome. Cholesterol level and blood pressure should be monitored at least yearly for obese patients at risk of diabetes.

Self-Assessment Quiz Question #4

When counseling patients about modifiable risk factors for diabetes, it is important to explain that:

a. A person is considered overweight of the BMI is 18.5 to <25.
b. Adults should engage in 60 minutes of moderate-intensity aerobic activity every week.
c. The desired HDL is less than 150 mg/dL.
d. Smokers are 30% to 40% more likely to develop type 2 diabetes than non-smokers.

PRESENTING CLINICAL SIGNS AND SYMPTOMS OF DIABETES MELLITUS

Many of the signs and symptoms of type 1 and type 2 diabetes are the same. There are, however, some differences. It is important for healthcare professionals to recognize all clinical manifestations of the disease and to know which of those signs and symptoms are more prevalent in one of the two types.

Clinical manifestations of type 1 diabetes mellitus

Type 1 diabetes is found most often in children. But the disease can also develop in adults. Patients with type 1 diabetes generally report an abrupt onset of symptoms. Following are the classic symptoms of type 1 diabetes (Khardori, 2021a; 2021b):

- Polyuria: production of abnormally large amounts of urine that is dilute
- Polydipsia: abnormally great thirst
- Polyphagia: excessive appetite or excessive feelings of hunger
- Unexplained weight loss

Polyuria is caused by osmotic diuresis secondary to hyperglycemia. Severe nocturnal enuresis (bedwetting) secondary to polyuria suggests type 1 diabetes in young children. Polyphagia develops to dehydration and hyperosmolar status (Khardori, 2021a; 2021b).

Following are other clinical manifestations of type 1 diabetes mellitus (Khardori, 2021a; 2021b):

- Weight loss occurs despite experiencing excessive appetite and hunger. This is caused by water depletion and a catabolic state with reduction in glycogen, proteins, and triglycerides.
- Fatigue and weakness may occur secondary to muscle wasting caused by a catabolic state of insulin deficiency, hypovolemia, and hypokalemia.
- Muscle cramping is caused by electrolyte imbalance.
- Blurred vision is a result of osmotic swelling of the lens, which alters its normal focal length.

Type 1 diabetes may also cause gastrointestinal (GI) disturbances (Khardori, 2021a; 2021b):

- Nausea, abdominal pain, and changes in bowel movements: these signs and symptoms may accompany acute diabetic ketoacidosis.
- Right upper quadrant pain because of acute fatty liver.
- Persistent GI disturbances, which may be caused by abdominal causes of diabetic ketoacidosis.

The onset of symptomatic type 1 diabetes may be abrupt. The first evidence of the disease may be the occurrence of ketoacidosis (Khardori, 2021a; 2021b).

Diabetic ketoacidosis (DKA)

DKA occurs most often in patients with type 1 diabetes and/or those less than 65 years of age, although it can occur with type 2 diabetes as well. DKA is an acute complication of hyperglycemic crisis. DKA is precipitated by acute insulin deficiency. Such deficiency can be caused by illness; stress; infection; and, in insulin-dependent patients, failure to take insulin (Ignatavicius et al., 2018; Mayo Clinic, 2020b; Rebar et al., 2019).

Without adequate amounts of insulin, which allow the cells to take in glucose to convert it to energy, glucose accumulates in the blood. The body begins to break down fat as an alternative fuel. When this happens, toxic acids known as ketones build up in the blood. Without treatment, DKA can result in coma or death (Ignatavicius et al, 2018; Mayo Clinic, 2020b).

The signs and symptoms of DKA usually develop rapidly, often within 24 hours. Patients experience polyuria, polydipsia, nausea, vomiting, abdominal pain, weakness or unusual fatigue, shortness of breath, fruity-scented breath, and confusion. Blood testing shows hyperglycemia and high levels of ketones in the urine (Mayo Clinic, 2020b; Rebar et al., 2019).

Because untreated DKA can be fatal, patients experiencing the signs and symptoms should seek emergency medical help. Emergency treatment usually includes insulin therapy, electrolyte replacement because inadequate amounts of insulin can reduce various electrolyte levels, and fluid replacement to correct dehydration (Mayo Clinic, 2020b).

Risk factors for DKA include having type 1 diabetes and frequently missing insulin doses. (Mayo Clinic, 2018g).

Persons with diabetes mellitus, especially those with type 1 diabetes, should work with their health care providers to manage conditions that trigger DKA. Following are examples of such conditions (Mayo Clinic, 2020b):

- Infections and illnesses: Infections and illnesses can cause the body to produce higher levels of adrenaline or cortisol, both of which are antagonistic to insulin. Common conditions that trigger DKA are pneumonia and urinary tract infections.
- Inadequate insulin therapy: Missing insulin treatments or taking inadequate amounts of insulin can trigger DKA.
- Miscellaneous problems: High fever, surgery, physical or emotional trauma, or alcohol or drug abuse, especially cocaine, can trigger DKA.

Healthcare Professional Consideration: It is imperative that healthcare professionals assess the knowledge of patients and families regarding the signs and symptoms of DKA, what causes it, and what to do about it. Parents may want to discuss the symptoms of DKA with their diabetic child's teachers, especially if the child participates in sports.

Self-Assessment Quiz Question #5

A patient is at risk for developing DKA if which of the following problems exist:

a. Excessive insulin.
b. Hypothermia.
c. Prediabetes.
d. Urinary tract infection.

CLINICAL MANIFESTATIONS OF TYPE 2 DIABETES MELLITUS

Until recently, it was believed that if diabetes occurred in childhood, it was type 1 diabetes. Now it is known that children also develop type 2 diabetes. As obesity in children increases, so does the incidence of type 2 diabetes in that population (Dansinger, 2021a). Therefore, it is important to identify risk factors and work with patients of all ages to reduce the risk of developing type 2 diabetes. It is also important to be alert to the clinical manifestations of the disease realizing that it can affect all age groups.

It can take years for the signs and symptoms of type 2 diabetes to become evident. Following are clinical manifestations of untreated diabetes (Ignatavicius et al., 2021; Mayo Clinic, 2021g):

- Polyuria and polydipsia: Excessive buildup of glucose in the blood stream causes fluid to move from the cells into the bloodstream to maintain homeostasis. This increases thirst and fluid intake casing an increase in dilute urine production.
- Polyphagia: When cells fail to receive adequate amounts of glucose for energy production, muscles, and organs experience energy depletion. This triggers intense hunger as the body attempts to obtain nourishment and energy.
- Weight loss: Even though patients may be eating more because of intense hunger, weight loss can occur. This is because the body is using alternative fuel sources in muscle and fat because it cannot metabolize glucose. Calories are lost as glucose is excreted in urine.
- Blurred vision: As glucose levels increase in the blood stream, fluid may be pulled from the lenses of the eyes to restore homeostasis. This can interfere with the ability of the eyes to focus, thus causing blurred vision.
- Fatigue: When cells are deprived of glucose and the ability to create energy, weakness, fatigue, and irritability can occur.
- Slow-healing cuts, lacerations or wounds, or frequent infections: Type 2 diabetes interferes with the body's ability to heal and to resist infections.
- Areas of darkened skin: Areas of darkened skin, called acanthosis nigricans, are dark velvety patches of skin in the folds and creases of the body. They are usually noted in the neck and axilla.

Healthcare Professional Consideration: Thirst mechanisms function less efficiently in elderly persons. So older adults may not report polydipsia when relaying signs and symptoms (Ignatavicius et al., 2018).

Diabetic hyperglycemic hyperosmolar syndrome (HHS) is a complication of type 2 diabetes. HHS is characterized by extremely high blood glucose levels without the presence of ketones, extreme dehydration, and decreased levels of consciousness. The kidneys attempt to rid the body of excess amounts of glucose in the blood by increasing urinary output. Without adequate fluid replacement, dehydration occurs. Additionally, dehydration makes the blood more concentrated with sodium, glucose, and other substances. This condition is known as hyperosmolarity and causes the body to withdraw fluid from other body organs (including the brain) to restore balance. Electrolyte balances are disturbed as well. If blood glucose levels are not returned to normal, an ongoing cycle of hyperglycemia and dehydration occurs that can lead to coma and even death (Ignatavicius et al. 2018; MedlinePlus, 2021a).

The goals of treatment are to correct dehydration, restore fluid and electrolyte balance, and control blood glucose levels. Intravenous fluids containing appropriate amounts of various electrolytes are administered as well as insulin via the venous route. Untreated, HHS may lead to shock, thrombosis formation, cerebral edema, and lactic acidosis (Ignatavicius, Workman, & Rebar, 2018; MedlinePlus, 2021a).

DIAGNOSIS OF DIABETES MELLITUS

Diabetes may be diagnosed based on plasma glucose criteria, either the fasting plasma glucose (FPG) value or the 2-hour plasma glucose (2-hour PG) value during a 75-g oral glucose tolerance test (OGTT), or A1C criteria (ADA, 2021b).

The ADA (2021b) diagnostic criteria include:

- A fasting plasma glucose (FPG) level >126 ng.dL (7.0 mmol/L), or
- A 2-hour plasma glucose level >200 mg/dL (11.1 mmol/L) during a 75-g oral glucose tolerance test (OGTT) or
- A random plasma glucose > 200 mg/dL (11.1 mmol/L) in a patient with classic symptoms of hyperglycemia or hyperglycemic crisis.

Details about the various tests used in the diagnostic process follow.

Random (casual) plasma glucose test

This test can be performed at any time of day when severe diabetic symptoms develop. Diabetes is diagnosed when the blood glucose is >200 mg/dL (ADA,2021n).

Fasting plasma glucose (FPG)

FPG assesses fasting blood glucose levels. Fasting is defined as not have anything to eat or drink except water for at least eight hours before the test. The test is typically performed first thing in the morning before breakfast. (ADA, 2021n).

FPG results are (ADA, 2021n):

- Normal: Less than 100 mg/dL
- Prediabetes: 100 mg/dL to 125 mg/dL
- Diabetes: 126 mg/dL or higher

Oral glucose tolerance test (OGTT)

An OGTT is performed to assess insulin response to glucose loading. A fasting blood sugar is obtained before the ingestion of an oral glucose solution, and blood samples are drawn at specifically timed intervals. The oral glucose solution should contain the equivalent of 75 g anhydrous glucose dissolved in water (ADA, 2021a; Pagana et al., 2019).

Results from the OGTT are (ADA, 2021a):

- Normal: less than 140 mg/dL.
- Prediabetes: 140 mg/dL to 199 mg/dL
- Diabetes: 200 mg/dL or higher

Patient care considerations and patient teaching include the following important factors (Pagana et al., 2019; Rebar et al, 2019):

- The patient should follow their usual diet and exercise regimen for three days before the test.
- The patient must be instructed to fast for 12 hours before the OGTT.
- Certain drugs may be withheld before testing based on the recommendations of the patient's health care provider. Examples of drugs that can interfere with test results are hormonal contraceptives, salicylates, diuretics, phenytoin, and nicotinic acid.
- Fasting blood and urine specimens are obtained.
- An oral glucose solution is administered that consists of 75 g of glucose or dextrose for patients who are not pregnant or 100 g for pregnant patients. The patient must drink the entire glucose solution. The amount of glucose in solution is based on body weight for pediatric patients.
- During the OGTT, the patient must not use tobacco or ingest coffee or tea because these substances cause physiological stimulation. They must be told not to eat or drink anything during the testing period except for the oral glucose solution provided by the test administrator—except for water, which the patient is encouraged to drink.
- A venous blood sample is collected at 30- and 60-minutes post-ingestion of the glucose solution and at hourly intervals thereafter.
- Urine samples are collected at hourly intervals.
- During the period of testing, the patient should be monitored for dizziness, sweating, weakness, and giddiness, which are usually transient and self-limiting.

A1C test

The A1C test is a blood test used to obtain information about a patient's average blood glucose over the past three months. The A1C is used in the diagnosis of type 2 diabetes and prediabetes and is the primary test used for diabetes management (NIDDK, 2018e).

The A1C test does not require fasting. Blood can be drawn at any time of day, thus making it more convenient than some other testing options. The test may also be used during the first health care pregnancy visit to determine if the woman had undiagnosed diabetes before becoming pregnant. After that, the oral glucose tolerance test (OGTT) or the glucose challenge test is used to test for gestational diabetes (NIDDK, 2018e; Pagana et al., 2019).

The A1C test is based on attachment of glucose to hemoglobin in red blood cells. Although red blood cells are continually forming and dying, they typically live for approximately three months. The A1C can reflect blood glucose levels over the previous three months. Reported as a percentage, the higher the percentage, the higher the blood glucose levels have been (NIDDK, 2018e).

Results of the A1C are (2021n):

- Normal: Less than 5.7%
- Prediabetes: 5.7 to 6.4%
- Diabetes: 6.5% or higher

Recommendations from the ADA include (2021n):

- Assess glycemic status (A1C or other glycemic measurement) at least two times a year in patients who are meeting treatment goals (and who have stable glycemic control).
- Assess glycemic status at least quarterly, and as needed, in patients whose therapy has recently changed and/or who are not meeting glycemic goals.

Healthcare Professional Consideration: Because A1C reflects average glucose status over several months, it has significant predictive value for diabetes complications. A1C testing should be performed routinely in all patients who have diabetes (ADA, 2021e).

Following are the A1C-range recommended goals (ADA, 2021e):

- An A1C goal for many nonpregnant adults of <7% (53 mmol/mol) without significant hypoglycemia is appropriate.
- If using ambulatory glucose profile/glucose management indicator to assess glycemia, a parallel goal is a time in range of >70% with time below range <4%.
- Based on provider judgment and patient preference, achievement of lower A1C levels than the goal of 7% may be acceptable, and even beneficial, if it can be achieved safely without significant hypoglycemia or other adverse effects of treatment.
- Less stringent A1C goals (such as <8% [64 mmol/mol]) may be appropriate for patients with limited life expectancy, or where the harms of treatment are greater than the benefits.
- Reassess glycemic targets over time based on the criteria specific to various age groups.

Table 1. Explanation of Results of Diabetes Screenings

Test	Normal	Prediabetes	Diabetes
A1C	Less than 5.7%	5.7% to 6.4%	6.5% or higher
Fasting plasma glucose	Less than 100 mg/dL	100 mg/dL to 125 mg/dL	126 mg/dL or higher
Oral glucose tolerance test	Less than 140 mg/dL	140 mg/dL to 199 mg/dL	200 mg/dL or higher

Compiled from: (ADA, 2021b; 2021e; 2021n)

Self-Assessment Quiz Question #6

When teaching a patient about the random plasma glucose test, it is important to explain that:

a. The test should be performed first thing in the morning.
b. The random plasma glucose test requires that the patient fast for 8 hours before the test.
c. The test is performed when severe diabetic symptoms develop.
d. Diabetes is diagnosed when the blood glucose is > 150 mg/dL.

MANAGEMENT OF DIABETES MELLITUS

Management of diabetes mellitus focuses on glycemic control and prevention and reduction of complications. Successful management depends on a team approach that involves physicians, nurse practitioners, nurses, dieticians, pharmacists, and mental health professionals who have expertise in diabetes mellitus management. The most critical members of the team are patients and families who are ultimately responsible for adhering, or helping loved ones to adhere to, the treatment regimen (ADA, 2021l).

Glycemic control

Glycemic control is assessed by the A1C measurement, continuous glucose monitoring (CGM), and self-monitoring of blood glucose (SMBG). Rationale for these tests includes (ADA, 2021e; 2021m):

- A1C reflects average glycemia over about a period of three months. This test is the primary test for the assessment of glycemic control and has strong predictive value for diabetic complications.
- CGM: CGM plays an important role in the assessment of the effectiveness and safety of treatment in many patients with type1 diabetes, including the prevention of hypoglycemia and in selected patients with type 2 diabetes.
- SMBG: SMBG can be used with self-management and medication adjustment, especially in persons who are taking insulin.

Recommendations for glycemic assessment are (ADA, 2021e):

- Assess glycemic status (A1C or other glycemic measurement) at least two times a year in patients who are meeting treatment goals (and who have stable glycemic control).
- Assess glycemic status at least quarterly, and as needed, in patients whose therapy has recently changed and/or who are not meeting glycemic goals.

Self-monitoring blood glucose (SMBG)

SMBG is essential to effective diabetes management. Individual patients' needs and goals guide SMBG frequency and timing. Research findings have shown that in patients who have type 1 diabetes, there is a correlation between greater SMBG frequency and lower A1C (American Diabetes Association, 2021e).

Continuous glucose monitoring (CGM)

Most of the people who use CGM have type1 diabetes. Research is now underway to learn how CGM might help people who have type 2 diabetes. A healthcare provider's prescription is needed to obtain CGM systems (NIDDK, 2021f).

CGMs are approved for use by adults and children. Some models may be used for children as young as two years of age. CGM may be recommended if the patient (NIDDK, 2021f):

- Is on intensive insulin therapy (also referred to as tight blood sugar control)
- Has hypoglycemia unawareness (Hypoglycemia unawareness occurs when the patient does not feel or recognize the signs or symptoms of hypoglycemia; patients who have frequent episodes of hypoglycemia may no longer experience hypoglycemia's usual warning symptoms).
- Often experiences episodes of elevated or low blood glucose

CGM has evolved swiftly in terms of both accuracy and affordability. This means that many patients have data available to assist with both self-management and assessment by healthcare providers (ADA, 2021e).

The ADA (2021e) makes the following recommendations for glucose assessment by continuous glucose monitoring.

- Standardized, single-page glucose reports from continuous glucose monitoring (CGM) devices with visual cues, such as the ambulatory glucose profile (AGP), should be considered as a standard printout for all CGM devices.
- Time in range (TIR) is associated with the risk of microvascular complications, should be an acceptable end point for clinical trials moving forward, and can be used for assessment of glycemic control. Additionally, time below target (,70 and ,54 mg/dL [3.9 and 3.0 mmol/L]) and time above target (.180 mg/dL [10.0 mmol/L]) are useful parameters for reevaluation of the treatment regimen.

CGM systems use a tiny sensor that is inserted under the skin to check glucose levels in tissue fluid. The sensor remains in place for several days to a week and then is replaced. A transmitter relays information about glucose levels via radio waves from the sensor to a wireless monitor (NIDDK, 2021f).

Advantages of a CGM system include (NIDDK, 2021f):

- An alarm can sound when glucose levels are too high or too low
- Meals, physical activity, and medicines can be noted in a CGM device, as well as glucose levels
- Data can be downloaded to a computer or smart device to improve visibility of glucose trends
- CGM systems offer better management of daily glucose levels
- There are fewer hypoglycemic emergencies with the use of a CGM
- With a CGM, fewer finger sticks are needed

CGM has limitations, as well as advantages. These limitations include (NIDDK, 2021f):

- Most CGM models cannot be used to make treatment decisions unless the CGM reading is confirmed by doing a finger-stick glucose test.
- A CGM is more expensive than using a standard glucose meter. Patients should check their insurance plans or Medicare to see what costs are covered.

Insulin Pumps

Most people with type 1 diabetes should be treated with multiple daily injections of prandial insulin and basal insulin or continuous subcutaneous insulin infusion. Most people with type 1 diabetes should use rapid-acting insulin analogs to reduce hypoglycemia risk (ADA 2021k).

Patient/family education regarding pharmacological management with insulin should include matching prandial insulin doses to carbohydrate intake, premeal blood glucose levels, and anticipated physical activity. Individuals with type 1 diabetes who have been successfully using continuous subcutaneous insulin infusion should have continued access to this therapy after they turn 65 years of age (ADA, 2021k).

Hundreds of thousands of people of all ages throughout the world are using an insulin pump for diabetes mellitus management. First used by patients with type 1 diabetes, some persons with type 2 diabetes use them as well. (Stoppler, 2018).

Insulin pumps are about the size of a small cell phone and are computerized. Insulin pumps provide a constant stream of insulin so that fewer needle sticks are required. Pumps are a good option for children or anyone else who has trouble remembering to administer their insulin injections (Cleveland Clinic, 2021).

Insulin pumps may be especially useful for people who (Cleveland Clinic, 2021):

- Experience delays in the absorption of food
- Are active and may want to pause insulin doses when exercising
- Have severe reactions to hypoglycemia
- Have diabetes and are planning a pregnancy

Traditional insulin pumps transport insulin from a chamber within the pump via tubing to a site on the skin that is connected to a smaller flexible plastic cannula. The cannula is a few millimeters long and delivers the insulin underneath the skin (Cleveland Clinic, 2021).

Insulin patch pumps also use a cannula beneath the skin. However, the insulin delivery chamber and the cannula are part of one pod that "sits" in the skin with an adhesive patch. The patch can be directly placed on the stomach or arm. There is no external tubing, and it is controlled wirelessly via a handheld controller (Cleveland, Clinic, 2021).

There are both advantages and disadvantages of insulin pumps. Advantages include:

- Consistent, adjustable insulin delivery
- Fewer insulin injections
- Flexibility and privacy
- Improved blood glucose levels
- Improved lifestyle freedom and flexibility

Risks or complications of insulin pumps include (Cleveland Clinic, 20210:

- Setting up the pump incorrectly
- Costing more than injections
- Problems hiding the tubing or pump with non-patch styles (Cleveland, Clinic, 2021)

Artificial Pancreas Device System

The Artificial Pancreas Device System is a system of devises that closely mimics the functioning of a healthy pancreas. Most of these systems consist of a continuous glucose monitoring system, and an insulin infusion pump. A blood glucose device is used to calibrate CGM. A computer-controlled algorithm connects the CGM and insulin pump to facilitate ongoing communication between the two devices (Food and Drug Administration (FDA), 2018).

An artificial pancreas device system replaces manual blood glucose testing and the use of insulin injections. The system monitors blood glucose levels 24-hours a day. The system can be monitored remotely (e.g., by parents or healthcare professionals) (NIDDK, 2021f).

There are three categories of artificial pancreas device systems. These include:

1. Threshold suspend device systems (also called low glucose suspend systems): This type of system temporarily suspends insulin delivery when the glucose level falls to or approaches a low glucose threshold. Its purpose is to reduce the severity of or reverse hypoglycemia.
2. Insulin-only system: This system "achieves a target glucose level by automatically increasing or decreasing the amount of insulin infused based on the CGM values.
3. Bi-hormonal control system: This device "achieves a target glucose level by using two algorithms to instruct an infusion pump to deliver two different hormones—one hormone (insulin) to lower glucose levels and another (such as glucagon) to increase blood glucose levels. The bi-hormonal system mimics the glucose-regulating function of a healthy pancreas more closely than an insulin-only system (FDA, 2017).

Research continues regarding the development of artificial pancreas device systems. To date, the FDA has approved two systems. These are (Tenderich, 2020).

- Medtronic MiniMed 670G: This is a hybrid closed-loop system.
- Control-IQ from Tandem Diabetes Care: This system combines Tandem's touchscreen insulin pump with the Dexcom CGM and a smart algorithm for the purpose of auto-adjusts for high and low blood glucose levels and automatic corrections for unexpected highs.

Insulin

Typical blood glucose levels targets are to keep daytime blood glucose levels before meals between 80 and 130 mg/dL (4.44 to 7.2 mmol/L) and after meal results to no higher than 180 mg/dL (10 mmol/L), two hours after eating (Mayo Clinic, 2021f).

Persons with type 1 diabetes typically need lifelong insulin therapy. There are many types of insulin therapy and include:

- Short-acting (regular) insulin
- Rapid acting insulin
- Intermediate-acting (NPH) insulin.
- Long-acting insulin (Mayo Clinic, 2021f)

Examples of the various types of insulin include (Mayo Clinic, 2021f):

- Short-acting: Humulin R and Novolin R
- Rapid-acting: Glulisine (Apidra), insulin lispro (Humanlog), and insulin aspart (Novolog)
- Intermediate-acting: Insulin NPH (Novolin N, Humulin N0
- Long-acting: Insulin glargine (Lantus, Toujeo Solostar), insulin detemir (Levemir), and insulin degludec (Tresiba)

Inhaled insulin is available as a rapid-acting insulin. Inhaled insulin is contraindicated in patients with chronic lung disease and is not recommended in patients who smoke or who recently stopped smoking. All patients require spirometry evaluation to identify potential lung disease before and after starting inhaled insulin therapy (ADA, 2021k).

Self-Assessment Quiz Question #7

Pharmacological therapy for the treatment of diabetes includes which of the following interventions?

a. Administration of inhaled insulin is contraindicated in patients who smoke.
b. Administration of Lantus is the preferred initial pharmacological agent for patients with type 2 diabetes.
c. Incorporating manual blood glucose testing in conjunction with an artificial pancreas system.
d. Using inhaled insulin is available as a long-acting insulin.

Pharmacologic therapy for type 2 diabetes

The FDA (2021k) makes the following recommendations for pharmacologic therapy for type 2 diabetes.

- Metformin is the preferred initial pharmacologic agent for the treatment of type 2 diabetes.
- Once initiated, metformin should be continued as long as it is tolerated and not contraindicated; other agents, including insulin, should be added to metformin.
- Early combination therapy can be considered in some patients at treatment initiation to extend the time to treatment failure.
- The early introduction of insulin should be considered if there is evidence of ongoing catabolism (weight loss), if symptoms of hyperglycemia are present, or when A1C levels (>10% [86 mmol/mol]) or blood glucose levels (≥300 mg/dL [16.7 mmol/L]) are very high.
- A patient-centered approach should be used to guide the choice of pharmacologic agents. Considerations include effect on cardiovascular and renal comorbidities, efficacy, hypoglycemia risk, impact on weight, cost, risk for side effects, and patient preferences.
- Among patients with type 2 diabetes who have established atherosclerotic cardiovascular disease or indicators of high risk, established kidney disease, or heart failure, a sodium–glucose cotransporter 2 inhibitor or glucagon-like peptide 1 receptor agonist with demonstrated cardiovascular disease benefit is recommended as part of the glucose-lowering regimen independent of A1C and in consideration of patient-specific factors.
- In patients with type 2 diabetes, a glucagon-like peptide 1 receptor agonist is preferred to insulin when possible.
- Recommendation for treatment intensification for patients not meeting treatment goals should not be delayed.
- The medication regimen and medication-taking behavior should be reevaluated at regular intervals (every 3–6 months) and adjusted as needed to incorporate specific factors that impact choice of treatment.
- Clinicians should be aware of the potential for over-basalization with insulin therapy. Over-basalization is titration of basal insulin beyond an appropriate dose to achieve glycemic targets. Clinical signals that may prompt evaluation of over-basalization include basal dose more than 0.5 IU/kg, high bedtime-morning or post-preprandial glucose differential, hypoglycemia (aware or unaware), and high variability. Indication of over-basalization should prompt reevaluation to further individualize therapy.

Non-pharmacologic diabetes management

Nutrition

Nutrition therapy is recommended for all patients with type 1 and type 2 diabetes. For those patients who are overweight or obese, modest weight loss may provide significant clinical benefits such as improved glucose control and lipid levels and reduction in blood pressure, especially early in the course of the disease (ADA, 2021h).

Evidence-based practice! Research suggests that there is a benefit to eating protein or protein and vegetables before eating the carbohydrate portion of a meal (ADA, 2021h). healthcare professionals should collaborate to ensure patients and families have access to planning the best meal options for persons with diabetes.

The goal of a good nutrition plan is to get the nutrients needed while keeping blood glucose levels within target range. The patient's goals, tastes, preferences, lifestyle, and medications should be considered when meal planning (CDC, 2021f).

According to the CDC (2021f) a good meal plan will:

- Include more non-starchy vegetables, such as broccoli, spinach, and green beans.
- Include fewer added sugars and refined grains such as white bread, rice, and pasta with less than two grams of fiber per serving.
- Focus on whole foods instead of highly processed foods as much as possible.

The CDC (2021f) recommends using a plate method as part of the meal planning process. Patients should consider a nine-inch dinner plate and:

- Fill half of the plate with non-starchy vegetables, such as salad, green beans, broccoli, cauliflower, cabbage, and carrots.
- Fill one-quarter of the plate with a lean protein, such as chicken, turkey, beans, tofu, or eggs.
- Fill one-quarter of the plate with carb foods such as grains, starchy vegetables (peas, potatoes), rice, pasta, fruit, and yogurt. A cup of milk counts as a carb food.
- Choose water or a low-calorie drink such as unsweetened tea to go with a meal.

Many people appreciate having a guide as to what constitutes a "portion" of a particular nutrient. The CDC (2021f) offers the following suggestions for estimating portion size.

- Three ounces of meat, fish, or poultry: Palm of hand (no fingers)
- One ounce of meat or cheese: Thumb tip to base
- One cup or one medium fruit: Fist
- One to two ounces of nuts or pretzels: Cupped hand
- One Tablespoon: Thumb tip (tip to first joint)
- One teaspoon: Fingertip (tip to first joint)

Physical activity

Being overweight or obese is linked to a vast number of medical problems, including heart disease and cancer. Proper nutritional intake and physical activity not only help patients to achieve weight goals but also have a positive impact on diabetes. Exercise may also have a positive effect for depression associated with the consequences of the need for diabetes management.

As previously noted, the American Heart Association (2021) recommends:

- At least 150 minutes per week of moderate-intensity aerobic physical activity;
- Or 75 minutes per week of vigorous-intensity aerobic physical activity (or a combination of the two);
- And muscle-strengthening exercises at least two days per week.

People who have diabetes must monitor their physical activity in relation to their glycemic levels. For example, exercise can lead to hyperglycemia or hypoglycemia depending on its intensity, timing, duration, and type of physical activity (ADA 2021h).

People who take insulin or oral pharmacological agents are at risk for hypoglycemia if insulin dose or carbohydrate intake is not adjusted with exercise. Exercise regimens should be planned with the healthcare team. The ADA (n.d.) recommends following the 15-15 rule:

- Check blood sugar
- If the reading is 100mg/dL or lower have 15-20 grams of carbohydrate. Examples include four glucose tablets, one glucose gel tube, four ounces of juice ore regular soda, or one tablespoon of sugar or honey.
- Check blood sugar again after 15 minutes. If it is still below 100 mg/dL another servicing of 15 grams of carbohydrate is needed.
- Repeat these steps every 15 minutes until blood sugar is at least 100 mg/dL.

Smoking cessation

All patients should be advised not to use any tobacco products or e-cigarettes. Nonsmokers should be advised not to use e-cigarettes. Smoking cessation should be a routine part of diabetes management (American Heart Association, 2021).

Psychosocial care

Mental health and well-being are important to general health and wellness and can impact the patient's or family's ability to implement diabetes treatment. The physical and emotional stress that can accompany a chronic health problem can put the patient and her family at risk for mental health problems (ADA, 2021o; Grygotis, 2016).

Psychosocial screening and follow-up treatment include attitudes about illness; expectations for management and outcomes; affect/mood; quality of life experiences and expectations; financial, social, and emotional resources; and psychiatric history. Patients should also be routinely screened for such issues as depression and diabetes-related distress, anxiety, eating disorders, and impairment of cognitive functioning (ADA, 2021o; Grygotis, 2016).

Support groups for diabetics may offer some therapeutic value. In addition, group exercise such as yoga, workout groups, or swimming exercise classes can provide both psychosocial support and a physical benefit for weight loss and improved cardiovascular condition. Meditation, pet therapy, behavioral therapy, and religious support may be of interest to some patients. Antidepressant medication may be considered if needed (ADA, 2021o; Grygotis, 2016).

Hypoglycemia prevention

Hypoglycemia is the primary factor limiting the glycemic management of type 1 and insulin-treated type 2 diabetes. It is imperative that nurses and other members of the health care team instruct patients and families how to recognize signs and symptoms of hypoglycemia, identify situations that increase their risk for hypoglycemia such as fasting, during or after intense exercise, and during sleep. They must be taught to balance insulin use, carbohydrate intake, and exercise to prevent and reduce hypoglycemic episodes (ADA, 2021e).

Immunizations

There are several recommendations for adults who have diabetes mellitus (ADA, 2021c).

- Provide routinely recommended vaccinations for adults with diabetes by age. Children should also receive routine vaccinations by age.
- Administer Hepatitis B vaccine for persons less than 60 years of age. For persons over 60 healthcare providers should be consulted.
- Administer HPV vaccine to persons 26 years old and under. Persons between the ages of 27-45 years may also be vaccinated after consulting with their healthcare providers.
- Administer influenza vaccine to all patients annually. All patients should be advised not to receive live attenuated influenza vaccine.
- Administer pneumonia PPSV23 pneumovax to persons 19-64 years of age. Persons 65 and older should receive a second dose at least five years from prior pneumovax vaccine.
- There are no recommendations for the administration of pneumonia (PCV13 Prevnar) to persons 19-64 years of age. For persons 65 and older who are not immunocompromised, have a cochlear implant, or cerebrospinal fluid leak, decisions must made in conjunction with their healthcare providers.
- Administer tetanus, diphtheria, pertussis (TDAP) to all adults with a booster every 10 years. All adult pregnant women should have an extra dose of this vaccine.
- Administer Zoster vaccine to all persons 50 years of age or older (two-dose Shingrix even if previously vaccinated).
- COVID vaccinations for all patients, as permitted by age.

Obesity management

Overweight and obesity contribute to a myriad of health problems. There is significant evidence that managing obesity can delay the progression from prediabetes to type 2 diabetes and may contribute to successful management of type 2 diabetes (ADA, 2021j).

The ADA (2021j) recommends that BMI be calculated and documented at all patient visits. Additional recommendations state that overweight and obese patients should participate in a regimen of diet, physical activity, and behavioral therapy to achieve >5% weight loss. Furthermore, such interventions should be individualized to the patient. After weight loss goals have been achieved, diet, physical activity, and behavioral therapy should be continued to maintain weight loss and achieve treatment goals.

Healthcare Professional Consideration: It is important that patients' medication regimens be evaluated for their impact on weight. This evaluation should include all the medications the patient takes: prescription drugs, over-the-counter supplements, and herbal preparations. If necessary, weight loss medications may be prescribed to help lose weight. Potential benefits of these medications should be weighed against potential risks and side effects (ADA, 2021j). Patients should be cautioned not to take any weight loss products without prior consultation with their health care providers.

Metabolic surgery

Metabolic surgery is the phrase used to describe surgery and procedures that treat metabolic diseases, especially type 2 diabetes (ADA, 2021j). Bariatric surgery that aims to treat comorbid conditions, such as diabetes mellitus associated with obesity, is called as metabolic surgery. Metabolic surgery is usually limited to patients with a body mass index (BMI) >35. The surgeon typically connects one end of the stomach to an opening in the new stomach pouch. After this surgery, when you eat, food bypasses most of the stomach and the first part of the small intestines. That makes this surgery both restrictive and malabsorptive.

Following are recommendations and suggestions for metabolic surgery (ADA, 2021j).

- Recommend metabolic surgery as an option for the treatment of type 2 diabetes in appropriate surgical candidates with BMI > 40 kg/m2 (BMI >37.5 kg/m2 in Asian Americans and in adults with BMI 35.0-39.9 kg/m2 (32.5-37.4 kg/m2 in Asian Americans.
- Suggest metabolic surgery as an option for adults with type 2 diabetes and BMI 30.0 to 34.9 kg/m2, (27.5 to 32.4 kg/m2 in Asian Americans, if hyperglycemia is inadequately controlled despite appropriate medical intervention.
- Metabolic surgery should be done in health care facilities that perform high-volume numbers of such surgeries and where multidisciplinary teams experienced in metabolic surgery work.
- Provide long-term support and monitoring of patients who have undergone metabolic surgery according to national and international standards.
- Perform a comprehensive mental health evaluation before surgery.
- Postpone surgery in patients with histories of alcohol abuse, substance abuse, depression, suicidal ideation, and other mental health concerns until these issues have been adequately addressed.
- Evaluate the need for ongoing mental health services to help with medical and psychosocial changes post-surgery.

Research has shown that metabolic surgery leads to "superior glycemic control and reduction of cardiovascular risk factors in obese patients with type 2 diabetes compared with various lifestyle/medical interventions" (ADA, 2021j).

Pancreas transplant

A pancreas transplant is performed to implant a healthy pancreas from a deceased donor into a patient with diabetes. Almost all pancreas transplants are done to treat cases of type 1 diabetes and are usually reserved for those patients with serious diabetes complications because side effects of transplantation are significant. The pancreas must be meticulously matched to the recipient and is transported in a cooled solution that preserves the organ for up to approximately 15 to 20 hours. Once a pancreas becomes available, it must be transplanted into a recipient within 18-24 hours. Pancreas transplant is often done in conjunction with a kidney transplant or after successful kidney transplantation in persons whose kidneys have been damaged by diabetes. The average waiting time for a pancreas transplant is about 23 months. The average wait for a simultaneous kidney-pancreas transplant is about 13 months (Mayo Clinic, 2019; MedlinePlus, 20121b).

Candidates for a pancreas transplant typically have type 1 diabetes, along with kidney damage, nerve damage, or eye problems, or other complications. Transplant candidates usually have diabetes that is out of control despite medical treatment. Some people who have type 2 diabetes may be candidates for transplant if they have both low insulin resistance and low insulin production (Johns Hopkins Medicine, 2021).

About 10% of all pancreas transplants are performed in people with type 2 diabetes. This is generally because of the patients' having both low insulin resistance and low insulin production (Mayo Clinic, 2019).

Surgical pancreatic transplant takes about three hours. If done in conjunction with a kidney transplant, the combined surgery takes about six hours. The patient's diseased pancreas is not removed during the surgery. The donor pancreas is usually placed in the right lower part of the abdomen, and blood vessels from the new pancreas are attached to the patient's blood vessels. The donor duodenum is attached to the patient's intestine or bladder (MedlinePlus, 2019).

- The following are complications associated with the transplant surgery (Mayo Clinic, 2019).
- Hemorrhage
- Blood clots
- Infection
- Hyperglycemia
- Urinary tract infections
- Failure of the donated pancreas
- Rejection of the donated pancreas

Following a pancreas transplant the patient must take medications for the rest of his life to help prevent rejection of the donor pancreas. Such medications have several side effects (Mayo Clinic, 2019):

- Thinning of bones
- Elevated cholesterol
- Hypertension
- Skin sensitivity
- Fluid retention
- Weight gain
- Swollen gums
- Acne
- Excessive hair growth

Before transplantation, patients are evaluated both physically and mentally. Patients must be able to cope with and adhere to lifelong medical follow-up, the need to take medications to help prevent organ rejection for the rest of their lives, and the ability to cope with side effects of medications needed after transplantation (Mayo Clinic, 2019; MedlinePlus, 2021b18b).

Self-Assessment Quiz Question #8

All of the following immunization recommendations for adults who have diabetes mellitus are accurate EXCEPT:

a. Administer influenza vaccine to all patients annually.
b. The TDAP vaccine should not be administered to pregnant women.
c. All persons 50 years of age or older should receive the two-dose Shingrix vaccine.
d. The HPV vaccine should be given to persons 26 years old and under.

Case study: Jeremy Wilson

Jeremy is a 16-year-old high-school student who has a history of hard-to-control type1 diabetes. Jeremy is struggling to live what he calls "a normal life like my friends." Because of the seriousness of his condition he, his parents, and his healthcare providers agree that he is a candidate for pancreas transplant.

Question 1: How long will it take to obtain a pancreas for transplantation?

Discussion:
The average wait time for a pancreas transplant is about 23 months. The pancreas must be meticulously matched to the recipient and is transported in a cooled solution that preserves the organ for up to approximately 15 to 20 hours. Once a pancreas becomes available, it must be transplanted into a recipient within 18-24 hours. Jeremy needs to know about the waiting period for a pancreas. It may be a difficult waiting period as he is anxious to live "a normal life." Jeremy, and his family, may benefit from counseling as they wait and in preparation for undergoing, and living with, transplantation.

Question 2: What happens during the transplant procedure?

Discussion
Surgical pancreatic transplant takes about three hours. If done in conjunction with a kidney transplant, the combined surgery takes about six hours. The patient's diseased pancreas is not removed during the surgery. The donor pancreas is usually placed in the right lower part of the abdomen, and blood vessels from the new pancreas are attached to the patient's blood vessels. The donor duodenum is attached to the patient's intestine or bladder

Question 3: Why is a mental health examination needed before transplant surgery?

Discussion
Before transplantation, patients are evaluated both physically and mentally. Patients must be able to cope with and adhere to lifelong medical follow-up, the need to take medications to help prevent organ rejection for the rest of their lives, and the ability to cope with side effects of medications needed after transplantation

PREVENTION AND MANAGEMENT OF COMPLICATIONS OF DIABETES

The possibility of complications must be addressed with patients and families. Healthcare professionals must not only monitor patients but also teach patients and families to recognize signs and symptoms of complications and how to adhere to treatment regimens for complications if they occur.

The CDC identifies the following risk factors for diabetes-related complications (CDC, 2020c):

Smoking

- 21.6% were tobacco users based on self-report or levels of serum cotinine.
- 15.0% reported current cigarette smoking.
- 36.4% had quit smoking but had a history of smoking at least 100 cigarettes in their lifetime.

Overweight and obesity

- 89.0% were overweight or had obesity, defined as a body mass index (BMI) of 25 kg/m2 or higher.

Specifically:
- 27.6% were overweight (BMI of 25.0 to 29.9 kg/m2)
- 45.8% had obesity (BMI of 30.0 to 39.9 kg/m2)
- 15.5% had extreme obesity (BMI of 40.0 kg/m2 or higher)

Physical inactivity

• 38.0% were physically inactive, defined as getting less than 10 minutes a week of moderate or vigorous activity in each physical activity category of work, leisure time, and transportation.

A1C

- 50.0% had an A1C value of 7.0% or higher

Specifically:
- 22.3% had an A1C value of 7.0% to 7.9%
- 13.2% had an A1C value of 8.0% to 9.0%
- 14.6% had an A1C value higher than 9.0%
- 16.3% of adults aged 18–44 years had A1C levels of 10% or higher, compared to 12.7% of those aged 45–64 years and 4.3% of those aged 65 years or older.

High blood pressure

- 68.4% had a systolic blood pressure of 140 mmHg or higher or diastolic blood pressure of 90 mmHg or higher or were on prescription medication for their high blood pressure.

High cholesterol

- 43.5% had a non-HDL level of 130 mg/dL or higher

Specifically:
- 22.4% had a non-HDL level of 130 to 159 mg/dL
- 11.2% had a non-HDL level of 160 to 189 mg/dL
- 9.9% had a non-HDL level of 190 mg/dL or higher

Cardiovascular disease

Prevention and management of complications of diabetes are important strategies for the promotion of health and wellness among those persons with diabetes mellitus. Cardiovascular disease (CVD) is the major cause of morbidity and mortality for persons who have diabetes as well as the largest contributor to both direct and indirect costs of diabetes. Research has shown that controlling individual cardiovascular risk factors helps prevent or slow CVD development in people with diabetes (ADA, 2021a).

Hypertension

Hypertension is a significant problem among people with diabetes and is a major risk factor for cardiovascular disease. There are generally three categories of blood pressure (CDC, 2020b):

1. Normal: systolic is less than 120 mmHg; diastolic is less than 80 mmHg.
2. Prehypertension: systolic is 120 to 139 mmHg; diastolic is 80 to 89 mmHg.
3. Hypertension: systolic is 140 mmHg or higher; diastolic is 90 mmHg or higher.

Persons who have elevated blood pressure should have blood pressure confirmed by using multiple readings and on separate days to diagnose hypertension. Additionally, all patients with hypertension and diabetes should monitor their blood pressure at home (American Diabetes Association, 2021a).

In pregnant patients with diabetes and pre-existing hypertension, blood pressure targets of 110-135/85 mmHg are suggested (ADA, 2021a).

The ADA (2021a) Standards of Medical Care in Diabetes recommends the following treatment initiatives for blood pressure control in persons with diabetes (American Diabetes Association, 2021a):

- Blood pressure should be measured at every routine clinical visit. Patients found to have elevated blood pressure (≥140/90 mmHg) should have blood pressure confirmed using multiple readings, including measurements on a separate day, to diagnose hypertension.
- All hypertensive patients with diabetes should monitor their blood pressure at home.
- For patients with diabetes and hypertension, blood pressure targets should be individualized through a shared decision-making process that addresses cardiovascular risk, potential adverse effects of antihypertensive medications, and patient preferences.
- For individuals with diabetes and hypertension at higher cardiovascular risk (existing atherosclerotic cardiovascular disease [ASCVD] or 10-year ASCVD risk ≥15%), a blood pressure target of <130/80 mmHg may be appropriate if it can be safely attained.
- For individuals with diabetes and hypertension at lower risk for cardiovascular disease (10-year atherosclerotic cardiovascular disease risk <15%), treat to a blood pressure target of <140/90 mmHg.
- In pregnant patients with diabetes and preexisting hypertension, a blood pressure target of 110–135/85 mmHg is suggested in the interest of reducing the risk for accelerated maternal hypertension and minimizing impaired fetal growth.
- For patients with blood pressure >120/80 mmHg, lifestyle intervention consists of weight loss when indicated, a Dietary Approaches to Stop Hypertension (DASH)-style eating pattern including reducing sodium and increasing potassium intake, moderation of alcohol intake, and increased physical activity.
- Patients with confirmed office-based blood pressure ≥140/90 mmHg should, in addition to lifestyle therapy, have prompt initiation and timely titration of pharmacologic therapy to achieve blood pressure goals.
- Patients with confirmed office-based blood pressure ≥160/100 mmHg should, in addition to lifestyle therapy, have prompt initiation and timely titration of two drugs or a single-pill combination of drugs demonstrated to reduce cardiovascular events in patients with diabetes.
- Treatment for hypertension should include drug classes demonstrated to reduce cardiovascular events in patients with diabetes. ACE inhibitors or angiotensin receptor blockers are recommended first-line therapy for hypertension in people with diabetes and coronary artery disease.
- Combination drug therapy is generally required to achieve blood pressure targets. However, combinations of ACE inhibitors and angiotensin receptor blockers and combinations of ACE inhibitors or angiotensin receptor blockers with direct renin inhibitors should not be used. These combinations increase the risk of hypotension, hyperkalemia, and renal impairment.
- An ACE inhibitor or angiotensin receptor blocker, at the maximum tolerated dose indicated for blood pressure treatment, is the recommended first-line treatment for hypertension in patients with diabetes and urinary albumin-to-creatinine ratio ≥300 mg/g creatinine or 30–299 mg/g creatinine. If one class is not tolerated, the other should be substituted.
- For patients treated with an ACE inhibitor, angiotensin receptor blocker, or diuretic, serum creatinine/estimated glomerular filtration rate and serum potassium levels should be monitored at least annually.
- Patients with hypertension who are not meeting blood pressure targets on three classes of antihypertensive medications (including a diuretic) should be considered for mineralocorticoid receptor antagonist therapy.

The DASH (Dietary Approaches to Stop Hypertension) diet focuses on fruits, vegetables, whole grains, and other foods that are deemed to be heart healthy and low in fat, cholesterol, and sodium. DASH also emphasizes intake of fat-free or low-fat dairy products, fish, poultry, and nuts. The intake of red meats, sweets, added sugars, and sugar-containing beverages is reduced. DASH is rich in nutrients, protein, and fiber (Mayo Clinic, 2020e; 2021c). This diet has been shown to help diabetic patients lose weight and maintain a more stable blood sugar.

Salt should be limited. Foods that are low in sodium and contain no added salt should be chosen. Salt should not be on the table during meals. No more than one teaspoon of salt per day should be consumed (Mayo Clinic, 2020e; 2021c).

Patients who smoke should be referred to smoking cessation programs. Smoking constricts and damages blood vessels and increases hypertension risk (Mayo Clinic, 2021c).

Finally, patients must be instructed in stress management techniques. Relaxation training, deep breathing exercises, guided imagery, and exercise all have been shown to facilitate stress reduction. Equally important is to help patients identify stressors in their lives and how to deal with them. For example, financial issues may prove to be significant stressors. The costs of a chronic illness, even with insurance coverage, can place a financial burden on patients and families. Relaxation techniques may be helpful, but patients may also need referral to financial counseling or resources that may be able to help defray the cost of medications and other treatments (Mayo Clinic, 2021c).

Lipid management

Lifestyle modifications that focus on weight loss if needed, dietary changes as needed (reduce intake of saturated fat, trans fat, and cholesterol; increase intake of n-3 fatty acids, fiber, and plant stanols/sterols), and glycemic control are central to lipid management (American Diabetes Association, 2021a).

The American Diabetes Association (2021a) offers the following recommendations for lipid management:

- For adults not taking lipid-lowering therapy, obtain a lipid profile at the time of diabetes diagnosis, at an initial medical evaluation, and every 5 years thereafter if younger than 40 years of age. Testing may be done more frequently as needed.
- A lipid profile should be obtained at the start of lipid-lowering therapy 4 to 12 weeks after starting therapy or when there is a change in dosage and annually thereafter.

- In adults not taking statins or other lipid-lowering therapy, it is reasonable to obtain a lipid profile at the time of diabetes diagnosis, at an initial medical evaluation, and every five years thereafter if under the age of 40 years, or more frequently if indicated.
- For patients with diabetes aged 40–75 years without atherosclerotic cardiovascular disease, use moderate-intensity statin therapy in addition to lifestyle therapy.
- For patients with diabetes aged 20–39 years with additional atherosclerotic cardiovascular disease risk factors, it may be reasonable to initiate statin therapy in addition to lifestyle therapy.
- In patients with diabetes at higher risk, especially those with multiple atherosclerotic cardiovascular disease risk factors or aged 50–70 years, it is reasonable to use high-intensity statin therapy.
- In adults with diabetes and 10-year atherosclerotic cardiovascular disease risk of 20% or higher, it may be reasonable to add ezetimibe to maximally tolerated statin therapy to reduce LDL cholesterol levels by 50% or more.
- For patients of all ages with diabetes and atherosclerotic cardiovascular disease, high-intensity statin therapy should be added to lifestyle therapy.
- For patients with diabetes and atherosclerotic cardiovascular disease considered very high risk using specific criteria, if LDL cholesterol is ≥70 mg/dL on maximally tolerated statin dose, consider adding additional LDL-lowering therapy (such as ezetimibe or PCSK9 inhibitor). Ezetimibe may be preferred because of lower cost.
- For patients who do not tolerate the intended intensity, the maximally tolerated statin dose should be used.
- In adults with diabetes aged >75 years already on statin therapy, it is reasonable to continue statin treatment.
- In adults with diabetes aged >75 years, it may be reasonable to initiate statin therapy after discussion of potential benefits and risks.
- Statin therapy is contraindicated in pregnancy.
- For patients with fasting triglyceride levels ≥500 mg/dL, evaluate for secondary causes of hypertriglyceridemia and consider medical therapy to reduce the risk of pancreatitis.
- In adults with moderate hyper-triglyceridemia (fasting or non-fasting triglycerides 175–499 mg/dL), clinicians should address and treat lifestyle factors (obesity and metabolic syndrome), secondary factors (diabetes, chronic liver or kidney disease and/or nephrotic syndrome, hypothyroidism), and medications that raise triglycerides.
- In patients with atherosclerotic cardiovascular disease or other cardiovascular risk factors on a statin with controlled LDL cholesterol but elevated triglycerides (135–499 mg/dL), the addition of icosapent ethyl can be considered to reduce cardiovascular risk.
- Statin plus fibrate combination therapy has not been shown to improve atherosclerotic cardiovascular disease outcomes and is generally not recommended.
- Statin plus niacin combination therapy has not been shown to provide additional cardiovascular benefit above statin therapy alone, may increase the risk of stroke with additional side effects, and is generally not recommended.

Antiplatelet agents for the management of CVD

Research findings indicate that aspirin has been shown to help reduce cardiovascular morbidity and mortality in patients who are high risk and who have had previous heart attack or stroke. However, its overall benefit in primary prevention among adults with no previous cardiovascular events (heart attack or stroke) is controversial for patients with or without a history of diabetes. Aspirin is not recommended for persons at low risk of ASCVD (men and women younger than 50 years of age with no other major ASCVD risk factors). This is because the low potential benefit is outweighed by the risks for bleeding (American Diabetes Association, 2021a).

Following are recommendations regarding aspirin therapy (American Diabetes Association, 2018j):

- Use aspirin therapy (75 to 162 mg/day) as a secondary prevention strategy for persons with diabetes and a history of ASCVD.
- Use clopidogrel (75 mg/day) for those patients with ASCVD and documented aspirin allergy.
- The use of dual antiplatelet therapy (low-dose aspirin and a P2Y12 inhibitor) is deemed reasonable for a year after an acute coronary syndrome and may have benefits beyond one year.
- Long-term treatment with dual antiplatelet therapy should be considered for patients with prior coronary intervention, high ischemic risk, and low bleeding risk to prevent major adverse cardiovascular events.
- Combination therapy with aspirin plus low-dose rivaroxaban should be considered for patients with stable coronary and/or peripheral artery disease and low bleeding risk to prevent major adverse limb and cardiovascular events.
- Aspirin therapy (75 to 162 mg/day) may be considered as a primary prevention strategy for those patients with type 1 or type 2 diabetes who have increased cardiovascular risk.

Screening and treatment recommendations for cardiovascular disease

The American Diabetes Association (2021a) does not recommend routine screening for coronary artery disease in asymptomatic patients if ASCVD risk factors are treated. Investigations for coronary artery disease should be considered if any of the following is present:

- Unexplained dyspnea
- Chest discomfort
- Carotid bruits
- Transient ischemic attack
- Stroke
- Claudication
- Peripheral arterial disease
- Electrocardiogram abnormalities

Following are recommendations for treatment of coronary heart disease for patients with diabetes (American Diabetes Association, 2021a):

- Among patients with type 2 diabetes who have established atherosclerotic cardiovascular disease or established kidney disease, a sodium–glucose cotransporter 2 inhibitor or glucagon-like peptide 1 receptor agonist with demonstrated cardiovascular disease benefit is recommended as part of the comprehensive cardiovascular risk reduction and/or glucose-lowering regimens.
- In patients with type 2 diabetes and established atherosclerotic cardiovascular disease, multiple atherosclerotic cardiovascular disease risk factors, or diabetic kidney disease, a sodium–glucose cotransporter 2 inhibitor with demonstrated cardiovascular benefit is recommended to reduce the risk of major adverse cardiovascular events and/or heart failure hospitalization.
- In patients with type 2 diabetes and established atherosclerotic cardiovascular disease or multiple risk factors for atherosclerotic cardiovascular disease, a glucagon-like peptide 1 receptor agonist with demonstrated cardiovascular benefit is recommended to reduce the risk of major adverse cardiovascular events.
- In patients with type 2 diabetes and established heart failure with reduced ejection fraction, a sodium–glucose cotransporter 2 inhibitor with proven benefit in this patient population is recommended to reduce risk of worsening heart failure and cardiovascular death.
- In patients with known atherosclerotic cardiovascular disease, particularly coronary artery disease, ACE inhibitor

or angiotensin receptor blocker therapy is recommended to reduce the risk of cardiovascular events.
- In patients with prior myocardial infarction, β-blockers should be continued for 3 years after the event.
- Treatment of patients with heart failure with reduced ejection fraction should include a β-blocker with proven cardiovascular outcomes benefit, unless otherwise contraindicated.
- In patients with type 2 diabetes with stable heart failure, metformin may be continued for glucose lowering if estimated glomerular filtration rate remains >30 mL/min/1.73 m2 but should be avoided in unstable or hospitalized patients with heart failure.

Diabetic neuropathy

Diabetic neuropathy is a group of nerve disorders caused by diabetes mellitus. Over the course of time, nerve damage can occur throughout the body. Some persons have no symptoms of nerve damage, but others may feel pain, tingling, or numbness in the hands, arms, feet, and legs. Neuropathy can occur in every organ system throughout the body (NIDDK, n.d).

The following persons are at highest risk for diabetic neuropathy (Mayo Clinic, 2021b):
- Those who are overweight
- Those who are hypertensive
- Those who have elevated cholesterol
- Those who have advanced renal disease
- Those who drink large amounts of alcohol
- Those who smoke

The American Diabetes Association (2021i) advocates the following screenings and treatments:
- Assess all patients for diabetic peripheral neuropathy beginning at diagnosis of type 2 diabetes and five years after the diagnosis of type 1 diabetes. After these initial assessments, patients should be evaluated at least annually.
- Include a careful history and assessment of either temperature or pinprick sensation as part of the assessment for distal symmetric polyneuropathy.
- Assess for signs and symptoms of autonomic neuropathy in patients who have microvascular complications.
- Optimize glucose control to prevent or delay the development of neuropathy or to slow its progression.
- Assess and treat patients to reduce pain related to diabetic peripheral neuropathy and symptoms of autonomic neuropathy.
- Prescribe either pregabalin or duloxetine as initial pharmacologic treatments for neuropathic pain in diabetes.

There are four types of diabetic neuropathy (NIDDK, n.d.):
1. Peripheral
2. Autonomic
3. Proximal
4. Focal

Peripheral Diabetic Neuropathy

Peripheral neuropathy is the most common type of diabetic neuropathy. The areas of the body most affected are the feet and legs. Rarely, other areas of the body—the arms, abdomen, and back—may be affected by peripheral neuropathy. Nerve damage can lead to a loss of sensation in the feet and legs placing the patient at significant risk for foot problems. Injuries, lesions, blisters, and sores on the feet may go unnoticed because of a lack of sensation. Infection can easily occur, and if not treated promptly, the infection can spread to the bone. Such infections may lead to amputation of toes, feet, and lower limbs. Many amputations can be prevented with meticulous skin care and swift recognition and treatment of infections (Dansinger, 2021b; Mayo Clinic, 2021e; NIDDK, 2018).

Common symptoms of diabetic peripheral neuropathy are tingling (resembling a "pins and needles" sensation), numbness (which can become permanent), burning (especially in the evening), and pain. Discomfort related to these symptoms may be reduced or controlled when blood glucose levels are under control (NIDDK, 2018c).

Painful diabetic neuropathy may be treated with oral medications (NIDDK, 2018c):
- Tricyclic antidepressants and other types of antidepressants as appropriate
- Anticonvulsants
- Skin creams, patches, or sprays (e.g., lidocaine)

Healthcare professionals must instruct patients and families in skin care, especially the care of the feet, because the nerves to the feet are the longest in the body and are the nerves most often impacted by neuropathy. Education should include the following instructions (Dansinger, 2021b; Mayo Clinic, 2021e):
- Clean the feet daily using warm, not hot, water and a mild soap. Do not soak the feet. Dry the feet gently but thoroughly with a soft towel, paying special attention to the skin between the toes.
- Apply gentle, non-perfumed lotion to the feet if they are dry. Do not put lotion between the toes.
- Inspect the feet and toes every day for cuts, blisters, redness, sores, calluses, or other problems. Use a mirror to check the bottom of the feet. If any abnormalities are noted, notify a health care provider immediately. Rigorous attention to leg and foot ulcers may include debridement, hyperbaric oxygen therapy, or intensive would care.
- Go to a podiatrist, if possible, to avoid injuring the toes when toenails need to be trimmed.
- Never go barefoot. Wear properly fitting shoes or slippers at all times to protect the feet from injuries. Shoes should not be tight; the toes should be able to move when wearing them. New shoes should be broken in gradually by wearing them for only an hour at a time initially.
- Examine shoes and slippers before putting them on, including feeling the insides. This is done to be sure that shoes and slippers are free from tears, sharp edges, or objects that might damage the feet.
- Participate in regular, gentle exercise. Routines such as yoga and tai chi might be of benefit.
- Stop smoking.
- Eat healthy meals.
- Avoid excessive amounts of alcohol.
- Monitor blood glucose levels per health care provider instructions.

Autonomic diabetic neuropathy

Autonomic neuropathy is damage to the nerves that are responsible for the control of the internal organs. Autonomic neuropathy can lead to problems in the cardiovascular, digestive, and renal systems. It can also cause sexual dysfunction, vision problems, and alterations in the function of the sweat glands (NIDDK, 2018a).

Heart and Blood Vessel Impact of Autonomic Neuropathy

Damage to the nerves of the cardiovascular system adversely affects the body's ability to adjust blood pressure and heart rate. This can lead to orthostatic hypotension, dizziness, lightheadedness, or fainting. Damage to the nerves that control heart rate can lead to tachycardia instead of normal increases and decreases in heart rate in response to body functions, stress, and physical activity (NIDDK, 2018a).

Patients must be taught to avoid changing position too quickly, especially from a lying to a sitting or standing position. Wearing elastic stockings may be helpful, and physical therapy can be useful when dealing with muscle weakness or loss of coordination. Heart healthy interventions such as smoking cessation, lipid management, blood pressure control, exercise, and diet may help

to decrease the development or progression of heart and blood vessel autonomic neuropathy (NIDDK, 2018a).

Digestive System Autonomic Neuropathy.
Following are common symptoms of digestive autonomic neuropathy (NIDDK, 2018a):

- Bloating
- Diarrhea
- Constipation
- Difficulty swallowing
- Feeling full after eating only a small amount of food
- Loss of appetite
- Nausea
- Vomiting
- Fecal incontinence

Treatments include dietary changes and medications to treat symptoms of constipation, diarrhea, fecal incontinence, and gastroesophageal reflux (NIDDK, 2018a).

Urinary Tract Involvement
Nerve damage can cause incomplete emptying of the bladder and increase the likelihood of urinary tract infections. Patients may also experience incontinence and increased urination at night (NIDDK, 2018a).

Patients are encouraged to drink plenty of fluids to help prevent infections. Because they may not be able to sense when their bladders are full, patients may implement a regular schedule of voiding such as every four hours (NIDDK, 2018a).

Sexual Organs Involvement
Autonomic neuropathy can gradually decrease sexual response in men and women even though sex drive may be unchanged. Men may be unable to have or unable to maintain an erection or have dry or reduced ejaculations. Women may have difficulty becoming aroused or achieving orgasm or experience a decrease in vaginal lubrication that can lead to painful intercourse (NIDDK, 2018a).

Treatment of erectile dysfunction in men begins with testing to rule out hormonal causes. To treat erectile dysfunction caused by neuropathy, medications that increase blood flow to the penis may be prescribed. Some medications are oral; others are injected into the penis or inserted into the urethra at the tip of the penis. Other interventions include the use of mechanical vacuum devices to increase blood flow to the penis or surgical implantation of an inflatable or semirigid device in the penis (Dansinger, 2021b; Ignatavicius et al., 2018; NIDDK, 2018a).

For women, the use of vaginal lubricants, estrogen creams, suppositories, and rings or medications to help reduce symptoms and facilitate arousal may be prescribed (Dansinger, 2021b; Ignatavicius et al., 2018; NIDDK, 2018a).

Self-Assessment Quiz Question #9

When counseling patients about autonomic diabetic neuropathy, healthcare professionals must know that:

a. The impact on heart and blood vessels can lead to orthostatic hypotension or fainting.
b. This type of neuropathy has no impact on sexual functioning.
c. It is important to limit fluid intake.
d. The use of elastic stockings is contraindicated.

Focal diabetic neuropathy

Focal diabetic neuropathy can appear suddenly. It affects specific nerves most often in the head, torso, or leg (NIDDK, 2018b).

Focal diabetic neuropathy may cause the following problems (NIDDK, 2018b):

- Double vision
- Aching behind one eye
- Bell's palsy (paralysis on one side of the face)
- Difficulty focusing the eyes

Focal diabetic neuropathy is unpredictable as well as being painful and is seen most often in older patients with focal neuropathy who tend to develop nerve compressions, also called entrapment syndromes. Carpal tunnel syndrome, which causes numbness and tingling of the hand and sometimes muscle weakness and pain, is a common example of such compression. Other nerves that are vulnerable to entrapment may cause pain on the outside of the shin or the inside of the foot (NIDDK, 2018b).

Diabetic retinopathy

Diabetic retinopathy is the most common diabetic eye disease and a leading cause of blindness in American adults. Initially, diabetic retinopathy may not cause any symptoms or only mild vision disturbances. However, the complication can eventually result in blindness (Mayo Clinic, 2021b; National Eye Institute, 2019).

The American Diabetes Association (2021i) recommends that to slow progression of diabetic retinopathy, patients should optimize glycemic control, blood pressure, and serum lipid control.

Diabetic retinopathy has four stages (Dansinger, 2021c):

1. Mild non-proliferative retinopathy: Microaneurysms occur, which are small areas of balloon-like swelling in the blood vessels of the retina.
2. Moderate non-proliferative retinopathy: Some blood vessels that provide nourishment to the retina are blocked.
3. Severe non-proliferative retinopathy: More and more blood vessels are blocked. Several areas of the retina are deprived of their blood supply, and they transmit messages to the body to grow new, additional blood vessels to supply nourishment.
4. Proliferative retinopathy: New blood vessels grow in an attempt to nourish the retina. This condition is referred to as proliferative retinopathy. These new blood vessels are fragile and abnormal and grow along the retina and along the surface of the clear vitreous gel that fills the inside of the eye. Because the walls of the abnormal vessels are so thin and fragile, they leak blood causing severe vision loss and even blindness.

It is rare to have signs and symptoms of the disease during early stages of diabetic retinopathy. However, as the disease progresses, symptoms may include the following Mayo Clinic, 2021b; National Eye Institute, 2019):

- Spots or dark strings floating in the visual field (commonly referred to as floaters)
- Blurred vision
- Dark or empty areas in vision
- Vision loss
- Problems with color perception

The American Diabetes Association (2021i) recommends that adults with type 1 diabetes have their first eye exam within five years of diagnosis. Persons with type 2 diabetes should get the initial eye exam soon after receiving a diagnosis. After the initial exam. The ADA recommends that all people with diabetes get an annual eye exam. Patients who have no evidence of retinopathy for one or more annual eye exams and glycemia is well controlled, then screening every one to two years may be considered.

The early stage of diabetic retinopathy may not require treatment. However, as the disease progresses, treatment is generally needed. Proliferative diabetic retinopathy requires prompt treatment (Mayo Clinic, 2021b).

Focal Laser Treatment
Also known as photocoagulation, focal laser treatment can stop or slow the leakage of blood or fluid in the eye. This procedure is performed in the office setting or at an eye clinic and is generally done in a single session. Vision may be blurry for a day after the procedure, and the patients may see small spots in their visual field for several weeks (University of Michigan Health, 2020).

Scatter Laser Treatment
Also known as panretinal photocoagulation, this treatment can shrink abnormal blood vessels. Also performed in an office or eye clinic setting, this procedure involves treating affected areas with scattered laser burns. The burns cause the abnormal blood vessels to shrink and scar. Scatter laser treatment is usually done in two or more sessions and causes blurred vision for about a day after the procedure. Some loss of peripheral vision or night vision after undergoing the procedure is possible (University of Michigan Health, 2020).

Vitrectomy
A vitrectomy is performed to remove blood from the middle of the eye (vitreous) as well as any scar tissue that is pulling on the retina. A vitrectomy is performed in a surgical center or hospital using local or general anesthesia. A tiny incision is made in the eye through which scar tissue and blood are removed and replaced with a saline solution to maintain the normal shape of the eye. A gas bubble may be placed in the cavity of the eye to help reattach the retina. If so, the patient may need to remain prone (face down) for several days until the gas bubble dissipates. An eye patch is worn, and medicated eye drops instilled for a few days or weeks. Vitrectomy may be followed or accompanied by laser treatment (Johns Hopkins Medicine, n.d.b).

Nursing Considerations: Patients treated with Scatter Laser procedures or vitrectomy may be extremely anxious for the fear of both pain and the possible complete loss of vision. Coaching, information about the procedures, and possible pre-mediation for anxiety should be considered. Patients required to remain prone for extended periods may also present nursing care challenges for eating and elimination.

Diabetic nephropathy

Diabetic nephropathy refers to damage to the kidneys caused by diabetes. Not all diabetics develop diabetic nephropathy. Diabetics who are at higher risk for its development include persons with hypertension, elevated cholesterol, smoking history, and uncontrolled blood glucose (ADA, 2021i).

Diabetic nephropathy does not produce symptoms in its early stages. Therefore, testing urine for the presence of albumin is very important so that kidney damage can be detected as soon as possible. Early kidney damage may be reversed (ADA, 2021g; 2021i).

Symptoms, when they appear, are not particularly specific. Fluid retention and edema, loss of sleep, loss of appetite, nausea and vomiting, weakness, and trouble concentrating are reported (ADA, 2020g; 2021i).

The primary treatment for diabetic nephropathy is to lower blood pressure. ACE inhibitors are recommended for most people who have hypertension, diabetes, and renal disease. Cholesterol and triglyceride levels must also be controlled; statins are generally prescribed (ADA, 2021g; 2021i).

As with most complications, the best way to prevent diabetic nephropathy is to control blood glucose levels. Blood pressure management, a healthy diet, regular physical exercise, and adhering to prescribed medication schedules are all extremely important. A low protein diet may be recommended (ADA, 2021g; 2021i).

Self-Assessment Quiz Question #10

All of the following statements pertaining to diabetic nephropathy are true EXCEPT:

a. Risk factors for the development of diabetic nephropathy include hypertension, smoking, and elevated cholesterol.
b. Diabetic nephropathy produces symptoms even in its early stages.
c. Symptoms of diabetic nephropathy are not particularly specific.
d. The primary treatment for diabetic nephropathy is to lower blood pressure.

Resources

There are a number of resources that may be helpful for patients, families, and healthcare professionals.

- American Association of Diabetes Educators https://journals.lww.com/nursing/Fulltext/2019/11000/Online_resources_for_patients_with_diabetes.19.aspx
- American Diabetes Association https://www.diabetes.org/resources
- Association of Diabetes Care & Education Specialists https://www.diabeteseducator.org/living-with-diabetes
- Centers for Disease Control and Prevention https://www.cdc.gov/diabetes/professional-info/index.html
- DiabetesCare.net http://www.diabetescare.net/resources
- Johns Hopkins Medicine https://www.hopkinsmedicine.org/gim/faculty-resources/core_resources/Patient%20Handouts/

Conclusion

Diabetes mellitus is a chronic disease that affects millions of people of all ages in the United States and around the world. It has the potential to cause complications that can affect all facets of a person's life as well as placing significant financial burden on patients, families, and society. But by adhering to individualized treatment regimens that rely on pharmacological therapy, diet, exercise, and healthy lifestyle habits, persons with diabetes can lead long, productive lives.

It is important to note that patients and families need a significant amount of education to carry out prescribed management interventions. They also need emotional support and referrals to mental health professionals as needed. The health care community must remember that dealing with a chronic illness places a great deal of stress not only on patients and loved ones but also on society as a whole. The costs of a chronic disease can be overwhelming. Sick time away from work can impact employers and work colleagues.

Effective management of diabetes also helps to prevent or reduce the occurrence of complications associated with the disease. Complications can range from mild inconveniences to serious consequences, including kidney failure, vision loss, and cardiovascular disease. The importance of taking every possible step to control blood glucose levels cannot be overemphasized.

But achieving and maintaining such control can be a challenge. The constant need to monitor blood glucose levels, exercise, monitor one's weight, and adhere to dietary mandates can be frustrating. The realization that such lifestyle mandates are lifelong can make some people disregard treatment recommendations. Thus, it is important that ongoing support and encouragement are provided by the health care team.

References

- American Diabetes Association (ADA). (n.d.). *Blood sugar and exercise.* https://www.diabetes.org/healthy-living/fitness/getting-started-safely/blood-glucose-and-exercise
- American Diabetes Association (ADA). (2021a). Cardiovascular disease and risk management: Standards of medical care in diabetes: 2021. *Diabetes Care,* 44(Supplement 1): S125-S150.https://doi.org/10.2337/dc21-S010.
- American Diabetes Association (ADA). (2021b). Classification and diagnosis of diabetes: Standards of medical care in diabetes: 2021. *Diabetes Care*, 44(Supplement 1, S115-533. https://doi.org/10.2337/dc21-S002.
- American Diabetes Association (ADA). (2021c). Comprehensive medical evaluation and assessment of comorbidities: Standards of medical care in diabetes: 2021. *Diabetes Care,* 44(Supplement 1)., S40-S52. https://doi.org/10.2337/dc21-S004.
- American Diabetes Association (ADA). (2021d). *Gestational diabetes treatment & perspective.* https://www.diabetes.org/diabetes/gestational-diabetes/how-to-treat-gestational-diabetes
- American Diabetes Association (ADA). (2021e). Glycemic targets: Standards of medical care in diabetes:2021. *American Diabetes Association Diabetes Care 2021,*44(Supplement 1): 573-584. https://doi.org/10.2337/dc21-S006.
- American Diabetes Association (ADA). (2021f). *How gestational diabetes can impact your baby.* https://www.diabetes.org/diabetes/gestational-diabetes/how-will-this-impact-my-baby
- American Diabetes Association (ADA). (2021g). *Kidney disease (nephropathy).* https://www.diabetes.org/diabetes/complications/kidney-disease-nephropathy
- American Diabetes Association (ADA). (2021h). *Lifestyle management: Five evidence-based lifestyle habits people with diabetes can use.* https://clinical.diabetesjournals.org/content/38/3/273
- American Diabetes Association (ADA). (2021i). Microvascular complications and foot care: Standards of medical care in diabetes: 2021. *Diabetes Care,* 44(Supplement 1): S151-S167. https://doi.org/10.2337/dc21-S011.
- American Diabetes Association (ADA). (2021j). Obesity management for the treatment of type 2 diabetes: Standards of medical care in diabetes: 2021. *Diabetes Care,* 44(Supplement 1): S100-S110. https://doi.org/10.2337/dc21-S008.
- American Diabetes Care (ADA). (2021k). Pharmacologic approaches to glycemic treatment: Standards of medical care in diabetes: 2021. *Diabetes care,* 44(Supplement 1), S111-S124. https://doi.org/10.2337/dc21-S009.
- American Diabetes Association (ADA). (2021l). *Standards of medical care in diabetes: 2021.* https://care.diabetesjournals.org/content/44/Supplement_1
- American Diabetes Association (ADA). (2021m). *Summary of revisions: Standards of medical care in diabetes: 2021.* https://care.diabetesjournals.org/content/44/Supplement_1/S4
- American Diabetes Association (ADA). (2021n). *Understanding A1C: Diagnosis.* https://www.diabetes.org/a1c/diagnosis
- American Diabetes Association (ADA). (2021o). *Understanding and facilitating behavioral change and well-being to improve health outcomes: Standards of medical care in diabetes.* https://care.diabetesjournals.org/content/44/Supplement_1/S53
- American Heart Association. (2021). *Diabetes risk factors.* https://www.heart.org/en/health-topics/diabetes/understand-your-risk-for-diabetes
- Castro, M. R. (2021). *Latent autoimmune diabetes in adults (LADA): What is it?* https://www.mayoclinic.org/diseases-conditions/type-1-diabetes/expert-answers/lada-diabetes/faq-20057880
- Cefalu, W. T., Dawes, D. Ed., Gavlak, G., Goldman, D., Herman, W. H., Van Nuys, K., Powers, A. C., Taylor, S. I., & Yatvin. (2018). Insulin access and affordability working group: Conclusions and recommendations. *Diabetes Care,* 41(6), 1299-1311. https://doi.org/10.2337/dci18-0019.
- Centers for Disease Control and Prevention (CDC) (2020a). *How much physical activity do adults need?* https://www.cdc.gov/physicalactivity/basics/adults/index.htm
- Centers for Disease Control and Prevention (CDC). (2020b). *Measuring blood pressure. About high blood pressure.* https://www.cdc.gov/bloodpressure/about.htm
- Centers for Disease Control and Prevention (CDC). (2020c) *National diabetes statistics report.* https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf
- Centers for Disease Control and Prevention (CDC). (2020d). *National diabetes statistics report, 2020.* https://www.cdc.gov/diabetes/library/features/diabetes-stat-report.html
- Centers for Disease Control and Prevention (CDC). (2020e). *National diabetes statistics report 2020.* https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf
- Centers for Disease Control and Prevention (CDC). (2020f). *Prevalence of both diagnosed and undiagnosed diabetes.* https://www.cdc.gov/diabetes/data/statistics-report/diagnosed-undiagnosed-diabetes.html
- Centers for Disease Control and Prevention (CDC). (2020g). *Rates of new diagnosed cases of type1 and type 2 diabetes continue to rise among children, teens.* https://www.cdc.gov/diabetes/research/reports/children-diabetes-rates-rise.html.
- Centers for Disease Control and Prevention (CDC). (2021a). *Defining adult overweight & obesity: Adult body mass index.* https://www.cdc.gov/obesity/adult/defining.html
- Centers for Disease Control and Prevention (CDC). (2021b). *Diabetes risk factors.* https://www.cdc.gov/diabetes/basics/risk-factors.html
- Centers for Disease Control and Prevention (CDC). (2021c). *Cost-effectiveness of diabetes.* https://www.cdc.gov/chronicdisease/programs-impact/pop/diabetes.htm
- Centers for Disease Control and Prevention (CDC). (2021d). *Leading causes of death.* https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm
- Centers for Disease Control and Prevention (CDC). (2021e). *Tips from former smokers.* https://www.cdc.gov/tobacco/campaign/tips/diseases/diabetes.html
- Centers for Disease Control and Prevention (CDC). (2021f). *Tips regarding diabetes meal planning.* https://www.cdc.gov/diabetes/managing/eat-well/meal-plan-method.html
- Cleveland Clinic. (2021). *Insulin pumps.* https://my.clevelandclinic.org/health/articles/9811-insulin-pumps
- Dansinger, M. (2019a). *Gestational diabetes.* https://www.webmd.com/diabetes/gestational-diabetes#1-1
- Dansinger, M. (2019b-). *Prediabetes (borderline diabetes).* https://www.webmd.com/diabetes/what-is-prediabetes
- Dansinger, M. (2021a). *Type 2 diabetes in children.* https://www.webmd.com/diabetes/type-2-diabetes-in-children#1
- Dansinger, M. (2021b). *What is diabetic neuropathy?* https://www.webmd.com/diabetes/diabetes-neuropathy#2-6
- Dansinger, M. (2021c). *What are the stages of diabetic retinopathy?* https://www.webmd.com/diabetes/eyes-21/dr/diabetic-retinopathy-stages
- Food and Drug Administration (FDA). (2017). *Types of artificial pancreas device systems.* https://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/HomeHealthandConsumer/ConsumerProducts/ArtificialPancreas/ucm259555.htm - TSDS
- Food and Drug Administration (FDA). (2018). *What is an artificial pancreas device system?* https://www.fda.gov/medical-devices/artificial-pancreas-device-system/what-pancreas-what-artificial-pancreas-device-system
- Grygotis, L. (2016). *ADA releases guidelines for psychosocial care for diabetes patients.* https://www.clinicaladvisor.com/home/topics/diabetes-information-center/ada-releases-guidelines-for-psychosocial-care-for-diabetes-patients/
- Ignatiavicius, D. D., Workman, M. L., Rebar, C., & Heimgartner, N. M. (2021). *Medical-surgical nursing (10th ed.).* Elsevier.
- Johns Hopkins Medicine. (n.d.a). *The pancreas.* https://www.hopkinsmedicine.org/health/conditions-and-diseases/the-pancreas
- Johns Hopkins Medicine. (n.d.b). *Vitrectomy.* https://www.hopkinsmedicine.org/health/wellness-and-prevention/vitrectomy
- Johns Hopkins Medicine. (2021). *Pancreas transplantation.* https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/pancreas-transplant
- Kalyani, R. R. (2017). *Diagnosis and classification of diabetes. https://www.hopkinsguides.com/hopkins/view/Johns_Hopkins_Diabetes_Guide/547038/all/Diagnosis_and_Classification_of_Diabetes*
- Khardori, R. (2021a). *Type 1 diabetes mellitus.* https://emedicine.medscape.com/article/117739-overview
- Khardori, R. (2021b). *Type 1 diabetes mellitus clinical presentation.* https://emedicine.medscape.com/article/117739-clinical
- Khardori, R. (2021c.). *What are common causes of secondary diabetes?* https://www.medscape.com/answers/117853-6389/what-are-common-causes-of-secondary-diabetes
- Kumok, Z. (2021). *Living with diabetes in 2021 means skyrocketing financial costs.* https://www.health.com/money/living-with-diabetes-costs
- Santos-Longhurst, A. (2020). *Type 2 diabetes statistics and facts.* https://www.healthline.com/health/type-2-diabetes/statistics
- Mayo Clinic. (2019). *Pancreas transplant.* https://www.mayoclinic.org/tests-procedures/pancreas-transplant/about/pac-20384783
- Mayo Clinic. (2020a). *Diabetes.* https://www.mayoclinic.org/diseases-conditions/diabetes/symptoms-causes/syc-20371444
- Mayo Clinic. (2020b). *Diabetic ketoacidosis.* https://www.mayoclinic.org/diseases-conditions/diabetic-ketoacidosis/symptoms-causes/syc-20371551
- Mayo Clinic. (2020c). *Gestational diabetes.* https://www.mayoclinic.org/diseases-conditions/gestational-diabetes/symptoms-causes/syc-20355339
- Mayo Clinic. (2020d). *Prediabetes. https://www.mayoclinic.org/diseases-conditions/prediabetes/symptoms-causes/syc-20355278*
- Mayo Clinic. (2020e). *Sample menus for the DASH diet.* https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/dash-diet/art-20047110
- Mayo Clinic. (2021a). *Cholesterol test.* https://www.mayoclinic.org/tests-procedures/cholesterol-test/about/pac-20384601
- Mayo Clinic. (2021b). *Diabetic retinopathy.* https://www.mayoclinic.org/diseases-conditions/diabetic-retinopathy/symptoms-causes/syc-20371611
- Mayo Clinic. (2021c). *High blood pressure (hypertension).*https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/diagnosis-treatment/drc-20373417
- Mayo Clinic. (2021d). *Metabolic syndrome.* https://www.mayoclinic.org/diseases-conditions/metabolic-syndrome/symptoms-causes/syc-20351916
- Mayo Clinic. (2021e). *Peripheral neuropathy.* https://www.mayoclinic.org/diseases-conditions/peripheral-neuropathy/diagnosis-treatment/drc-20352067
- Mayo Clinic. (2021f). *Type 1 diabetes diagnosis.* https://www.mayoclinic.org/diseases-conditions/type-1-diabetes/diagnosis-treatment/drc-20353017
- Mayo Clinic. (2021g). *Type 2 diabetes.* https://www.mayoclinic.org/diseases-conditions/type-2-diabetes/symptoms-causes/syc-20351193
- Mayo Clinic. (2021h). *Type 2 diabetes. Diagnosis. https://www.mayoclinic.org/diseases-conditions/diabetes/symptoms-causes/syc-20371444*
- Medline Plus. (2021a). *Diabetic hyperglycemic hyperosmolar syndrome.* https://medlineplus.gov/ency/article/000304.htm
- Medline Plus. (2021b). *Pancreas transplant.* https://medlineplus.gov/ency/article/003007.htm
- Morr, M. (2018). *Diabetes prevalence by type in the United States: CDC report.* https://www.clinicaladvisor.com/home/topics/diabetes-information-center/diabetes-prevalence-by-type-in-the-united-states-cdc-report/
- National Eye Institute. (2019). *Diabetic retinopathy.* https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/diabetic-retinopathy
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (n.d.). *Diabetic neuropathy.* https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/nerve-damage-diabetic-neuropathies/all-content#section5
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (2018a). *Autonomic neuropathy.* https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/nerve-damage-diabetic-neuropathies/autonomic-neuropathy
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (2018b). *Focal neuropathies. https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/nerve-damage-diabetic-neuropathies/focal-neuropathies*
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (2018c). *Peripheral neuropathy.* https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/nerve-damage-diabetic-neuropathies/peripheral-neuropathy
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (2018d). *Proximal neuropathy. https://www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/nerve-damage-diabetic-neuropathies/proximal-neuropathy*
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (2018e). *The A1C test & diabetes.* https://www.niddk.nih.gov/health-information/diagnostic-tests/a1c-test?dkrd=/health-information/diabetes/overview/tests-diagnosis/a1c-test#whatis
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (2021f). *Continuous glucose monitoring. https://www.niddk.nih.gov/health-information/diabetes/overview/managing-diabetes/continuous-glucose-monitoring*
- O'Connell, J. M., & Manson, S. M. (2019). Understanding the economic costs of diabetes and prediabetes and what we may learn about reducing health and economic burden of these conditions. *Diabetes Care,* 42(9), 1609-1611. https://doi.org/10.2337/dci19-0017.
- Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2019). *Mosby's diagnostic and laboratory test reference.* Elsevier.
- Rebar, C. R., Heimgartner, N. M., & Gersch, C. J. (Clinical Eds.). (2019). *Pathophysiology made incredibly easy (6th ed.).* Wolters Kluwer.
- Santos-Longhurst, A. (2020). *Type 2 diabetes statistics and facts.* https://www.healthline.com/health/type-2-diabetes/statistics
- Stoppler, M. C. (2018). *Insulin pump for diabetes.* https://www.medicinenet.com/insulin_pump_for_diabetes_mellitus/article.htm#what_is_an_insulin_pump
- Taylor, S. I. (2020a). The high cost of diabetes drugs: Disparate impact on the most vulnerable patients. *Diabetes Care,* 43(10), 2330-2332. https://doi.org/10.2337/dci20-0039. https://care.diabetesjournals.org/content/43/10/2330
- Taylor, S. I. (2020b). *What increases my risk of diabetes?* https://www.webmd.com/diabetes/guide/risk-factors-for-diabetes#1
- Tenderich, A. (2020). *Artificial pancreas: What you should know.* https://www.healthline.com/diabetesmine/artificial-pancreas-what-you-should-know
- The Pancreas Center. (n.d.). *The pancreas and its functions.* https://columbiasurgery.org/pancreas/pancreas-and-its-functions
- University of Michigan Health. (2020). *Laser photocoagulation retinopathy.* https://www.uofmhealth.org/health-library/tf4075
- Willis, L. M. (Clinical Ed.). (2018). *Anatomy & physiology made incredibly easy (5th ed.).* Wolters Kluwer.
- World Health Organization (WHO). (2021). *Diabetes.* https://www.who.int/news-room/fact-sheets/detail/diabetes

Self-Assessment Answers and Rationales

1. The correct answer is A.
Rationale: Prevalence of diagnosed diabetes was highest among American Indians/Alaska Natives (14.7%), people of Hispanic origin (12.5%), and non-Hispanic blacks (11.7%), followed by non-Hispanic Asians (9.2%) and non-Hispanic whites (7.5%).

2. The correct answer is C.
Rationale: The endocrine function of the pancreas focuses on hormone secretion. The endocrine cells of the pancreas are islet cells, or islets of Langerhans. These islet cells exist as clusters of cells that are scattered among the acinar cells. They consist of alpha, beta, and delta cells.

3. The correct answer is A.
Rationale: Pregnant women not previously found to have diabetes should be tested for gestational diabetes mellitus at 24-28 weeks of gestation.

4. The correct answer is D.
Rationale: Smoking is a significant risk factor for the development of type 2 diabetes and makes the disease harder to control after its development. Smokers are 30% to 40% more likely to develop type 2 diabetes than nonsmokers. People who smoke are more likely than nonsmokers to have trouble managing the disease.

5. The correct answer is D.
Rationale: Infections and illnesses can cause the body to produce higher levels of adrenaline or cortisol, both of which are antagonistic to insulin. Common conditions that trigger DKA are pneumonia and urinary tract infections.

6. The correct answer is C.
Rationale: This test can be performed at any time of day when severe diabetic symptoms develop. Diabetes is diagnosed when the blood glucose is >200 mg/dL.

7. The correct answer is A.
Rationale: Inhaled insulin is contraindicated in patients with chronic lung disease and is not recommended in patients who smoke or who recently stopped smoking.

8. The correct answer is B.
Rationale: Administer tetanus, diphtheria, pertussis (TDAP) to all adults with a booster every 10 years. All adult pregnant women should have an extra dose of this vaccine.

9. The correct answer is A.
Rationale: Damage to the nerves of the cardiovascular system adversely affects the body's ability to adjust blood pressure and heart rate. This can lead to orthostatic hypotension, dizziness, lightheadedness, or fainting.

10. The correct answer is B.
Rationale: Diabetic nephropathy does not produce symptoms in its early stages. Therefore, testing urine for the presence of albumin is very important so that kidney damage can be detected as soon as possible. Early kidney damage may be reversed

Course Code: ANCCNC05DM

Ethical and Legal Issues in Nursing Practice

7 Contact Hours

Release Date: September 2, 2022

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Faculty

Margaret-Ann Carno, PhD, MBA, MJ, PNP-AC/PC, ATSF, FAANDr, is an educator, practitioner, and researcher. Her passions are healthcare law, regulations, and research regulations. She obtained a master's in jurisprudence from Loyola University Chicago, School of Law, with a concentration in Health Law. She regularly teaches on these subjects.

Margaret-Ann Carno has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

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James Stowe, JD, RN, is both a nurse and attorney, obtaining his Nursing degree from Auburn University and Juris Doctor from Samford University, Cumberland School of Law. He practiced in the legal field, concentrating in part on medical claims, before returning to hospital administration. He is currently the director of a large emergency department.

James Stowe has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Course overview

Legal issues in nursing are based on legislation, practice standards, and licensure. Ethical issues, on the other hand, are often based on subjective values of "right" and "wrong." The purpose of this course is to help nurses deal with many of the ethical issues they face in their professional practice, as well as legal considerations that may impact ethical issues of patient care.

***Author's Note**: This education program is not a substitute for, nor is it intended to be, legal/ethical counseling or legal/ethical advice. For specific legal/ethical advice pertaining to you and your practice, consult appropriate legal authorities or ethical experts.*

Learning objectives

After completing this course, the learner will be able to:

- Describe how nursing scope of practice and standards of professional nursing practice govern nursing.
- Explain how state nurse practice acts define and describe nursing practice.
- Describe how the act of delegation is encompassed in the nurse practice act.
- Correlate nursing professional boundaries with appropriate nursing practice.
- Discuss legal and ethical implications of nursing practice.
- Describe professional guidelines for use of social media.
- Discuss how a just culture impacts nursing.

How to receive credit

- Read the entire course online or in print which requires a 7-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal information and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion.

CE Broker reporting

Colibri Healthcare, LLC, provider # 50-4007, reports course completion results within 1 business day to CE Broker. If you are licensed in Arkansas, District of Columbia, Florida, Georgia, Kentucky, Michigan, Mississippi, New Mexico, North Dakota, South Carolina, or West Virginia, your successful completion results will be automatically reported for you.

Accreditations and approvals

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Dakota Board of Nursing, Provider #50-4007; South Carolina Board of Nursing, Provider #50-4007; and West Virginia Board of Registered Nurses, Provider #50-4007. This CE program satisfies the Massachusetts States Board's regulatory requirements as defined in 244 CMR5.00: Continuing Education.

Activity director

June D. Thompson, DrPH, MSN, RN, FAEN, Lead Nurse Planner

Disclosures

Resolution of conflict of interest
In accordance with the ANCC Standards for Commercial Support for continuing education, Colibri Healthcare, LLC implemented mechanisms prior to the planning and implementation of the continuing education activity, to identify and resolve conflicts of interest for all individuals in a position to control content of the course activity.

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Course verification

All individuals involved have disclosed that they have no significant financial or other conflicts of interest pertaining to this course. Likewise, and in compliance with California Assembly Bill No. 241, every reasonable effort has been made to ensure that the content in this course is balanced and unbiased.

INTRODUCTION

Nursing practice is guided by three major pillars: ethical concepts, professional standards, and laws/regulation to ensure safe and professional nursing practice. A nurse must know and understand all three of these guiding pillars. A nurse will be held to these guiding pillars and lack of knowledge or understanding will not be an excuse if something happens to a patient. This course will first describe ethical concepts that influence nursing practice, then examine professional standards, most of which are based on specific ethical concepts. Finally, laws and regulations will be discussed. By the end of the course the nurse will have a better understanding of the three pillars that guide nursing practice.

BASIC ETHICAL CONCEPTS FOR NURSES

Ethics can be defined as the philosophic area of study of values, actions, and choices to determine what is right and wrong. It is a system of value actions and involves reasoning, analysis, questions, and judgments to help differentiate between right and wrong. Beliefs about what constitutes ethical behavior vary widely among healthcare professionals (Wacko Guido, 2020). In nursing there are ethical concepts to understand. While there are several concepts and theories, the main concepts for nurses to understand are: 1) autonomy, 2) beneficence, 3) nonmaleficence, 4) informed consent (which will be discussed later in the course), 5) veracity, and 6) justice.

Autonomy

The first ethical concept for nurses to know is autonomy. This is in relation to the patient's decision making over their own body. Although this seems easy enough, underlying autonomy are the additional components of agency, self-determination, independence, and liberty (Wacko Guido, 2020). Agency can be thought of as the ability to take responsibility for one's actions, which includes the ability to critique one's actions. This also ties into self-determination, meaning that a person must be able to access the information, understand the information, and then act upon the information. Agency and self-determination can require a high cognitive level of function, which may or may not be present in an ill patient. When a patient is ill, the ability to exert independence may be compromised as the usual supports and familiar environment are not available. Independence is the ability to follow one's own values. Finally, liberty is the ability to make choices without coercion or manipulation from others. When nurses are caring for patients, liberty can be impacted. For example, the patient may not want to disagree with the providers or family may be impressing their wishes on the patient. Given all these separate components of autonomy, it is up to the nurse to ensure to the best of their ability that the patient is truly autonomous (Wacko Guido, 2020).

Beneficence

The ethical concept of beneficence is not just to prevent or to do no harm (which will be discussed in nonmaleficence), but to actually act in a way that provides benefit to the patient (Varkey, 2021). Beneficence can be considered the basis of healthcare (Wacko Guido, 2020). The act of "doing good" can be many different acts. This includes providing care (even if painful and extensive, if the expected outcome will improve quality and potentially quantity of a patient's life) and not providing "extraordinary care" (such as when a patient wishes to die without advanced life support' Wacko Guido, 2020). Defining what is "good" is the main stumbling block with this concept (Wacko Guido, 2020). What one patient or nurse would define as beneficence, another patient or nurse may not.

Nonmaleficence

The term nonmaleficence means to do no harm, which includes not causing pain or suffering, not depriving others of life, and not incapacitating (Varkey, 2021). The meaning also includes not imposing harm to a patient. With most care a detriment (risk)/ benefit analysis is conducted, even if it is only in the mind of the nurse/ healthcare provider (Wacko Guido, 2020). An example of this would be wound care. Wound care can be painful (immediate harm/risk), however, by caring for the wound, the

patient will have a better outcome (benefit). Thus, the immediate "harm" (pain) is outweighed by the long-term outcome of improved healing of the wound.

Veracity
Veracity means to tell the truth (Wacko Guido, 2020). A nurse is obligated to provide truthful answers to patients and families' questions in an understandable manner. Also, a nurse is obligated to inform the patients and families what is not known at this time related to the care received. Veracity can be violated in a number of ways, two of which are telling of falsehoods and not providing all the information concerning alternatives to treatment. The third way is not usually thought of, but it is the use of medical terms and jargon that the patient or family does not understand. All information provided to patients and caregivers needs to be in a format that is understood. Providing information using more patient-centered language can assist with meeting this ethical principle. Also having the patient and family describe in their own words the information provided can help clarify any misconceptions and misunderstandings that may be present (Wacko Guido, 2020).

Fidelity
Fidelity is the principle of keeping any promises or commitments made to the patient and family (Wacker, 2019). This is one of the core principles of the nurse-patient relationship. Nurses should not make promises they cannot reasonably keep. An example if this would be telling a patient they will be pain free after a procedure, however complications arise that supersede this promise, such as hemodynamic instability or finding the medication regime which will keep the patient pain free when the initial regime is not keeping the patient pain free (Wacko Guido, 2020).

Justice
Treating all patients equally and fairly is the definition of justice (Varkey, 2021). This also includes treating all patients appropriately. All patients should be offered equal access to treatment. Justice recognizes the basic dignity of all patients the nurse provides care for (Wacko Guido, 2020).

Self-Assessment Quiz Question #1

A patient asks a nurse to explain the side effects of a medication. The nurse accurately does this. Which ethical principle is the nurse working under?
a. Veracity.
b. Justice.
c. Autonomy.
d. Nonmaleficence.

Case study 1

Susan is a new RN on an oncology floor. She is caring for an 88-year-old woman who has undergone several tests for night sweats and weight loss. The patient is very alert and mentally intact. The test results have shown that the woman has Acute Myeloid Leukemia (AML), which in adults has a very poor prognosis. Her two adult children do not want their mom to know the diagnosis and want every possible treatment to be given to their mom. They ask Susan not to answer any of their mother's questions about the diagnosis or treatment that she is going to receive. Susan is distressed by this request.

Question:
1. If Susan honors the children's request, which, if any, ethical principles are Susan violating?

Discussion:
1. Susan would be violating 1) autonomy, 2) beneficence, 3) nonmaleficence, and 4) veracity. The patient has the right to determine what will happen to their body (autonomy). The woman has the right to choose if she wants treatment or not, and if she wants treatment, what type. Susan is obligated to "do good for the patient." How could she being doing "good" for the patient (beneficence) if the patient does not know why the treatment is being given. Also, Susan is obligated to do no harm (nonmaleficence). Given the side effects of treatment, Susan could be doing harm that the patient does not want. Finally, Susan will most likely be lying to the patient and violating truth-telling or veracity. Every patient has a right to know what is going on with their medical care and determine what type of medical care to receive.

NURSING CODE OF ETHICS

The American Nurses Association (ANA) has taken these basic ethical concepts and incorporated them in the Code of Ethics for Nurses. The following summary highlights and paraphrases critical points of the ANA's Code of Ethics for Nurses (American Nurses Association, 2015). It is meant to serve as a brief introduction. For detailed information about the code, access the ANA website at https://www.nursingworld.org/coe-view-only.

The code is divided into nine provisions (American Nurses Association, 2015).

1. **The nurse practices with compassion and respect for the inherent dignity, worth, and unique attributes of every person.** Nurses must practice with compassion and respect for all patients regardless of social or economic status, personal attributes, or the nature of health problems. Inherent in this provision is an emphasis on respect for the worth, dignity, and human rights of all persons. A person's worth is not influenced by disease, disability, functional status, or nearness to death. All patients have the moral and legal right to determine their course of care. This is also referred to as self-determination and forms the basis for informed consent in healthcare.
2. **The nurse's primary commitment is to the patient, whether that is defined as an individual, family, group, community, or population**. The primary commitment is to promote the best interests of the patient. Nurses must examine their own beliefs and values to identify any conflicts between their beliefs and values and those of the patient's. Nurses must work to resolve such conflicts in the best interests of the patient.
3. **Nurses must promote, advocate, and work to protect the health, safety, and rights of the patient**. This means that nurses must guard the privacy and confidentiality of the patient as well as protect patients participating in healthcare research. Part of the protection aspect of this provision includes basic education and continuing education standards. For example, nurse educators must ensure that basic competencies are achieved. Nursing professional development specialists, in conjunction with nurses, must work to ensure that continuing education activities are designed and implemented to facilitate ongoing competency of licensed nurses. Nurses must also actively participate in the development of policies and review mechanisms designed to promote patient safety. Finally, nurses must be alert to instances of inappropriate or questionable practice and report such behavior to appropriate higher authorities within the employing institution or agency or to an appropriate external authority.
4. **Nurses are responsible for their individual nursing practices, including the appropriate delegation of tasks, to ensure optimum patient care**. This means that RNs are responsible not only for their own actions but also retain accountability for tasks that are delegated. Nurses should be aware of and adhere to the six "rights" of delegation (this is discussed later in this course).

5. **Nurses owe the same duties to themselves as to others**. They have a responsibility to preserve their integrity and safety, to maintain competence, and to continue their personal and professional growth. Competence includes having knowledge relevant to the current scope and standards of nursing practice, changing issues, concerns, controversies, and ethics. It also requires a commitment to lifelong learning.
6. **Nurses must recognize that the healthcare environment and conditions of employment are essential to optimum patient care and maximal employee performance**. Therefore, nurses must participate in the establishment, maintenance, and improvement of healthcare environments and conditions of employment.
7. **Nurses are obligated to advance the profession of nursing**. They should do so by developing, maintaining, and implementing professional standards in clinical, administrative, and educational practice.
8. **Nurses must collaborate with other healthcare professionals and the public to promote community, national, and international efforts to meet health needs**. As part of this collaborative responsibility, nurses must recognize that this country and the world are filled with cultural diversity and avoid impinging their personal cultural values upon others.
9. **The nursing profession (as represented by professional associations and their members) is responsible for the communication and affirmation of the values of the profession to its members**. This is accomplished by articulating the values of nursing, maintaining the profession's integrity and that of its practice, and shaping social policy.

These ethical provisions must be incorporated into the legal realm of nursing practice. It is important that nurses have knowledge of basic legal principles and how to incorporate those principles into nursing practice.

NURSING SCOPE OF PRACTICE AND STANDARDS OF PROFESSIONAL NURSING PRACTICE

The International Council of Nurses (ICN;2022) defines nursing as encompassing "autonomous and collaborative care of individuals of all ages, families, groups, and communities, sick or well, and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled, and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy, in patient and health systems management, and education are also key nursing roles."

The American Nurses Association defines nursing as:

> *"Nursing integrates the art and science of caring and focuses on the protection, promotion, and optimization of health and human functioning; prevention of illness and injury; facilitation of healing; and alleviation of suffering through compassionate presence. Nursing is the diagnosis and treatment of human responses and advocacy in the care of individuals, families, groups, communities, and populations in recognition of the connection of all humanity"* (ANA, p. 9, 2021).

In the United States, there are three levels of nursing practice:
1. Registered nurse (RN).
2. Advanced practice registered nurse (APRN).
3. Licensed practical nurse (LPN).

The ANA describes RNs as forming the backbone of healthcare provision in the United States (American Nurses Association, 2019). The association identifies the following key responsibilities of the RN (American Nurses Association):

- Performs physical exams and obtains health histories before making critical decisions.
- Provides health promotion, counseling, and education.
- Administers medications, provides wound care, and carries out a multitude of personalized interventions.
- Coordinates care in collaboration with a large array of healthcare professionals.

The licensed practical nurse, known as licensed vocational nurse (LVN) in California and Texas, complements the healthcare team by providing basic and routine care consistent with their education and under the supervision of an RN, APRN, or MD (American Nurses Association, 2019).

Key responsibilities of the licensed practical nurse include the following (American Nurses Association, 2019):
- Checks vital signs and looks for signs that health is deteriorating or improving.
- Performs basic nursing functions such as changing bandages and wound dressings.
- Ensures patients are comfortable, well fed, and hydrated.
- Administers medications in some settings.

Self-Assessment Quiz Question #2

Which of the following can be delegated to an LPN?
a. Assessment and physical exam.
b. Initial education on medications.
c. Changing a bandage.
d. Coordinating care.

SCOPE OF PRACTICE

What is scope of practice?
The ANA describes nursing scope of practice as an explanation of the who, what, where, when, why, and how of nursing practice. Furthermore, scope of practice delineates what the law allows based on specific education, training, experience, and licensure (American Nurses Association, 2021).

Nursing consideration: Nurses must know not only their own scope of practice but also the scope of practice of others, such as LPNs and nursing assistants, to whom they delegate tasks. RNs who delegate tasks are still accountable for that delegation in terms of its safety and appropriateness.

Determining the scope of practice

How can nurses determine if an action is within their scope of practice? First, they must review appropriate standards, laws, and rules of nursing practice. They must know the content of their state's nurse practice act and what their licenses allow them to do (American Nurses Association, 2021a; Wacker Guido, 2020).

Step 1
Clarify what skills, education, and training are needed to perform an action. Nurses should ask themselves the following questions:
- Is this action allowable by law according to legal standards and the nurse practice act in my state?
- If so, does the employing healthcare facility have policies and procedures that provide guidance for its performance?
- Do I have the necessary skills, experience, and training to perform this action?
- Am I competent to perform this action? If in doubt, nurses must seek help from a supervisor or peer who is competent in this action. Nurses must remember that once a patient assignment is accepted, they are responsible for fulfilling it safely and competently.

Step 2
Realize that what may be common practice (e.g., "We've always done it this way") may not necessarily be legal or in the best interests of the patient. For example: suppose a highly experienced LPN has been allowed to perform physical assessments independent of, and without collaboration with, an RN. This has been going on for years. However, in some states, this is beyond the legal scope of practice for LPNs. An RN who continues to delegate this action to LPNs is accountable for this illegal practice. Delegating tasks outside the scope of practice can be potential grounds for disciplinary action against both the LPN who performed the assessment and the RN who inappropriately delegated the task. It may also be the basis for a malpractice lawsuit if a patient is harmed as a result of such an action.

Step 3
Determine if the action taken is one that a reasonably prudent nurse with similar education, training, and experience would do; if a valid order for the task has been written by a physician, physician assistant, or APRN; and if the nurse in question has demonstrated competency in the skill and behavior required and has documentation of such competency. For example: Suppose a nurse is asked to counsel a patient regarding pregnancy prevention. This patient has received a diagnosis of schizophrenia and is not currently controlled with antipsychotic medication. The nurse has not worked with patients with schizophrenia and is unsure how to assess comprehension or how to adequately communicate with this patient. Nurse colleagues say, "Just do the best you can."

What should the nurse do?
In this situation, the nurse must seek help from a supervisor or another appropriate source of assistance such as a mental health specialist. Lack of competency in working with mental health patients is as much a concern as if they were asked to perform a specific motor skill procedure with which they are unfamiliar.

Nursing consideration: All nurses must be sure to act within their scope of practice and within their experience and training. If nurses are asked to do something that is within the legal scope of their nursing practice, but their training and experience have not prepared them to perform this action safely and competently, they should not do it (Wacko Guido, 2020). They should seek help from a nurse who can safely and competently perform the action. They also need to seek training opportunities so that they can achieve competency in performing new procedures.

STANDARDS OF PROFESSIONAL NURSING PRACTICE

The standards of professional nursing practice focus on facilitating the delivery of safe and effective nursing care. Most, if not all, state boards of nursing describe standards and scope of practice related to their nurse practice acts.

But what exactly are standards of professional nursing practice? Standards of professional nursing practice consist of the critical thinking model referred to as the nursing process and the ANA's Standards of Professional Performance. The standards for professional nursing practice describe those duties and responsibilities that all RNs must be able to fulfill safely and competently regardless of the setting of their practice or their specialty.

Nursing consideration: Professional nursing associations such as the American Association of Critical Care Nurses have developed scope and standards of practice pertaining to their respective specialties. Such standards generally build upon the ANA's Nursing Scope and Standards of Practice. Nurses must be aware of such scope and standards and practice within their respective specialties.

ANA STANDARDS OF PROFESSIONAL NURSING PRACTICE

The Standards of Professional Nursing Practice are "authoritative statements of duties that all registered nurses, regardless of role, population, or specialty are expected to perform competently." These standards are subject to formal, periodic review and revision. Competencies, which may be evidence of standard compliance, accompany each standard (American Nurses Association, 2021a).

The following is a summary of the highlights of the ANA Standards of Practice (American Nurses Association, 2021). Note that this is only a brief summary. Nurses should access the ANA website for further information on obtaining a copy of Nursing: Scope and Standards of Practice (4th ed.) at http://www.nursingworld.org/

Standard 1: Assessment

"The registered nurse collects pertinent data and information relative to the healthcare consumer's health or the situation." Competencies related to this standard focus on methods of data collection, including the incorporation of physical, psychosocial, environmental, emotional, cognitive, sexual, cultural, age-related, spiritual, and economic factors and engages interprofessional team members in data collection collaboration. The nurse also assesses the impact of family dynamics on the healthcare consumer's health and wellness and identifies enhancements and barriers to effective communication based on personal, cognitive, physiological, psychosocial, literacy, financial, and cultural considerations. The nurse engages the healthcare consumer, family, significant others, and interprofessional team members in holistic, culturally sensitive data collection and integrates knowledge from current local, regional, national, and global health initiatives and environmental factors into the assessment process (ANA, 2021a, Kindle Location 1773-1780).

Standard 2: Diagnosis

"The registered nurse analyzes assessment data to determine actual or potential diagnoses, problems, and issues." The diagnosis standard competencies focus on using assessment data to identify and prioritize nursing diagnoses (not medical diagnoses). The nurse will identify actual or potential risks to the healthcare consumer's health and safety or barriers to health, which may include but are not limited to, interpersonal, systematic, cultural, socioeconomic, or environmental circumstances. The nurse also uses assessment data, standardized classification systems, technology, and clinical decision support tools to articulate actual or potential diagnoses, problems, and issues. They identify the healthcare consumer's strengths and abilities, including but not limited to support systems, health literacy, and engagement in self-care. The nurse then verifies the diagnoses, problems, and issues with the healthcare consumer and interprofessional colleagues and prioritizes diagnoses, problems, and issues based on mutually established goals to meet the needs of the healthcare consumer across the health–illness continuum and the care continuum. Nurses document diagnoses, problems, strengths, and issues in a manner that facilitates the development of the expected outcomes and collaborative plan (ANA, 2021a., Kindle Location 1831-1833).

Standard 3: Outcomes Identification

"The registered nurse identifies expected outcomes for a plan individualized to the healthcare consumer or the situation." Competencies concentrate on engaging the entire healthcare team, including patients and families, in the identification of realistic outcomes. The nurse engages with the healthcare consumer, interprofessional team, and others to identify expected outcomes and collaborates with the healthcare consumer to define expected outcomes, integrating the healthcare consumer's culture, values, and ethical considerations. From this information, the nurse formulates expected outcomes derived from assessments and diagnoses. They then integrate evidence and best practices to identify expected outcomes and develop expected outcomes that facilitate coordination of care. The nurse next identifies a time frame for the attainment of expected outcomes, documents expected outcomes as measurable goals, and identifies the actual outcomes in relation to expected outcomes, safety, and quality standards. If needed, the nurse then modifies expected outcomes based on the evaluation of the status of the healthcare consumer and situation (ANA, 2021a, Kindle Location 1864-1872).

Standard 4: Planning

"The registered nurse develops a plan that prescribes strategies to attain expected, measurable outcomes." Competencies involve developing an individualized, holistic, evidence-based plan of care in partnership with the patient, family, and interprofessional team. The RN develops an individualized, holistic, evidence-based plan in partnership with the healthcare consumer, family, significant others, and interprofessional team And designs innovative nursing practices that can be incorporated into the plan. The RN prioritizes elements of the plan based on the assessment of the healthcare consumer's level of safety needs to include risks, benefits, and alternatives. The RN establishes the plan priorities with the healthcare consumer, family, significant others, and interprofessional team and advocates for compassionate, responsible, and appropriate use of interventions to minimize unwarranted or unwanted treatment, and healthcare consumer suffering, or both. The RN includes strategies designed to address each of the identified diagnoses, health challenges, issues, or opportunities. These strategies may include but are not limited to maintaining health and wellness; promotion of comfort; promotion of wholeness, growth, and development; promotion and restoration of health and wellness; prevention of illness, injury, disease, complications, and trauma; facilitation of healing; alleviation of suffering; supportive care; and mitigation of environmental or occupational risks. The RN incorporates an implementation pathway that describes an overall timeline, steps, and milestones. The RN provides for the coordination and continuity of care and identifies cost and economic implications of the plan. The RN develops a plan that reflects compliance with current statutes, rules and regulations, and standards and modifies the plan according to the ongoing assessment of the healthcare consumer's response and other outcome indicators. The RN documents the plan using standardized language or recognized terminology (ANA, 2021a, Kindle location 1898-1913).

Standard 5: Implementation

"The registered nurse implements the identified plan." Competencies include use of evidence-based practice and partners with the healthcare consumer to implement the plan. Demonstrates caring behaviors to develop therapeutic relationships. Provides care that focuses on the healthcare consumer. Advocates for the needs of diverse populations across the life span. Uses critical thinking and technology solutions to implement the nursing process to collect, measure, record, retrieve, trend, and analyze data and information to enhance healthcare consumer outcomes and nursing practice. Partners with the healthcare consumer to implement the plan in a safe, effective, efficient, timely, and equitable manner. Engages interprofessional team partners in implementation of the plan through collaboration and communication across the continuum of care. Uses evidence-based interventions and strategies to achieve mutually identified goals and outcomes specific to the problem or needs. Delegates according to the health, safety, and welfare of the healthcare consumer. Delegates after considering the circumstance, person, task, direction or communication, supervision, and evaluation, as well as the state nurse practice act (ANA, 2021a; Kindle location 1945-1954).

Standard 5A: Coordination of Care

"The registered nurse coordinates care delivery." Competencies focus on coordinating care with the interprofessional team. "Collaborates with the healthcare consumer and the interprofessional team to help manage healthcare based on mutually agreed-upon outcomes. Organizes the components of the plan with input from the healthcare consumer and other stakeholders. Manages the healthcare consumer's care to reach mutually agreed-upon outcomes. Engages healthcare consumers in self-care to achieve preferred goals for quality of life" (ANA, 2021a, Kindle Location 1993-1997)

Standard 5B: Health Teaching and Health Promotion

"The registered nurse employs strategies to promote health and a safe environment." RN competencies focus on effective patient/family education. Provides opportunities for the healthcare consumer to identify needed health promotion, disease prevention, and self-management topics such as: - Healthy lifestyles - Self-care and risk management - Coping, adaptability, and resiliency. Uses health promotion and health teaching methods in collaboration with the healthcare consumer's values, beliefs, health practices, developmental level, learning needs, readiness and ability to learn, language preference, spirituality, culture, and socioeconomic status. Uses feedback from the healthcare consumer and other assessments to determine the effectiveness of the employed strategies. Uses technologies to communicate health promotion and disease prevention information to the healthcare consumer (ANA, 2021a, Kindle Locations 2031-2038).

Standard 6: Evaluation

"The registered nurse evaluates progress toward attainment of goals and outcomes." Competencies concentrate on conducting ongoing, criterion-based evaluation of patient goals and outcomes. "Uses applicable standards and defined criteria (e.g., Quality and Safety Education for Nurses [QSEN], Quadruple Aim, Institute for Healthcare Improvement [IHI]). Conducts a systematic, ongoing, and criterion-based evaluation of the goals and outcomes in relation to the structure, processes, and timeline prescribed in the plan. Collaborates with the healthcare consumer, stakeholders, interprofessional team, and others involved in the care or situation in the evaluation process. Determines, in partnership with the healthcare consumer and other stakeholders, the person-centeredness, effectiveness, efficiency, safety, timeliness, and equitability of the strategies in relation to the responses to the plan and attainment of outcomes. Uses ongoing assessment data, other data and information resources and benchmarks, research, and meta-analysis for the analytic activities to revise the diagnoses, outcomes, plan, implementation, and evaluation strategies as needed. Documents the results of the evaluation. Reports evaluation data in a timely fashion. Shares evaluation data and conclusions with the healthcare consumer and other stakeholders to promote clarity and transparency in accordance with state, federal, organizational, and professional requirements" (ANA, 2021a, Kindle Location 2066-2077).

Standard 7: Ethics

"The registered nurse practices ethically." Competencies focus on the integration of the Code of Ethics for Nurses and Interpretive Statements (ANA, 2015). "Demonstrates that every person is worthy of nursing care through the provision of respectful, person-centered, compassionate care, regardless of personal history or characteristics. (Beneficence) Advocates for healthcare consumer perspectives, preferences, and rights to informed decision-making and self-determination. (Respect for autonomy) Demonstrates a primary commitment to the recipients of nursing and healthcare services in all settings and situations. (Fidelity) Maintains therapeutic relationships and professional boundaries. Acts to prevent breaches to privacy and confidentiality. Safeguards sensitive information within ethical, legal, and regulatory parameters. (Non-maleficence). Identifies ethics resources within the practice setting to assist and collaborate in addressing ethical issues. Integrates principles of social justice in all aspects of nursing practice. (Justice)" (ANA, 2021a, Kindle Location 2105-2113).

Standard 8: Advocacy

The registered nurse: Champions the voice of the healthcare consumer. Recommends appropriate levels of care, timely and appropriate transitions, and allocation of resources to optimize outcomes. Promotes safe care of healthcare consumers, safe work environments, and sufficient resources. Participates in healthcare initiatives on behalf of the healthcare consumer and the systems(s) where nursing happens. Demonstrates a willingness to address persistent, pervasive systemic issues. Empowers all members of the healthcare team to include the healthcare consumer in care decisions, including limitation of treatment and end of life. Embraces diversity, equity, inclusivity, health promotion, and healthcare for individuals of diverse geographic, cultural, ethnic, racial, gender, and spiritual backgrounds across the life span. Develops policies that improve care delivery and access for underserved and vulnerable populations (ANA, 2021a, Kindle Location 2149-2158).

Standard 9: Respectful and Equitable Practice

"The registered nurse practices with cultural humility and inclusiveness." Competencies include providing care which is respectful, equitable and empathetic. "Demonstrates respect, equity, and empathy in actions and interactions with all healthcare consumers. Respects consumer decisions without bias. Participates in life-long learning to understand cultural preferences, worldviews, choices, and decision-making processes of diverse consumers. Reflects upon personal and cultural values, beliefs, biases, and heritage. Applies knowledge of differences in health beliefs, practices, and communication patterns without assigning value to the differences. Addresses the effects and impact of discrimination and oppression on practice within and among diverse groups. Uses appropriate skills and tools for the culture, literacy, and language of the individuals and population served. Communicates with appropriate language and behaviors, including the use of qualified healthcare interpreters and translators in accordance with consumer needs and preferences" (ANA, 2021a, Kindle location 2198-2206).

Standard 10: Communication

The registered nurse: "Assesses one's own communication skills and effectiveness. Demonstrates cultural humility, professionalism, and respect when communicating. Assesses communication ability, health literacy, resources, and preferences of healthcare consumers to inform the interprofessional team and others. Uses language translation resources to ensure effective communication. Incorporates appropriate alternative strategies to communicate effectively with healthcare consumers who have visual, speech, language, or communication difficulties. Uses communication styles and methods that demonstrate caring, respect, active listening, authenticity, and trust. Conveys accurate information to healthcare consumers, families, community stakeholders, and members of the interprofessional team. Advocates for the healthcare consumer and their preferences and choices when care processes and decisions do not appear to be in the best interest of the healthcare consumer. Maintains communication with interprofessional team members and others to facilitate safe transitions and continuity in care delivery. Confirms the recipient of the communication heard and understands the message. Contributes the nursing perspective in interactions and discussions with the interprofessional team and other stakeholders. Promotes safety in the care or practice environment, disclosing and reporting concerns related to potential or actual hazards or deviations from the standard of care. Demonstrates continuous improvement of communication skills" (ANA, 2021a, Kindle Location 2236-2251).

Standard 11: Collaboration

The registered nurse: "Partners with the healthcare consumer and key stakeholders to advocate for and effect change, leading to positive outcomes and quality care. Treats others with dignity and respect in all interactions. Values the expertise and contribution of other professionals and key stakeholders. Uses the unique and complementary abilities of all members of the interprofessional team to optimize attainment of desired outcomes. Articulates the nurse's role and responsibilities within the interprofessional team. Uses appropriate tools and techniques, including information systems and technologies, to facilitate discussion and team functions in a manner that protects dignity, respect, privacy, and confidentiality. Promotes engagement through consensus building and conflict management. Uses effective group dynamics and strategies to enhance performance of the interprofessional team. Partners with all stakeholders to create, implement, and evaluate plans. Role models the development of shared goals, clear roles, mutual trust, effective communication, efficient processes, and measurable outcomes within the interprofessional team" (ANA, 201a, Kindle location 2273-2284).

Standard 13: Education

The registered nurse: seeks knowledge and competence that reflects current nursing practice and promotes futuristic thinking". Competencies include "Identifies learning needs based on the various roles assumed and associated requisite nursing knowledge. Participates in continuing professional development activities related to nursing and interprofessional knowledge bases and professional topics. Seeks experiences that reflect current practice to maintain and advance knowledge, skills, abilities, and judgment in clinical practice or role performance. Maintains current knowledge and skills relative to the role, population, specialty, setting, and local or global health situation. Commits to lifelong learning through critical thinking, self-reflection, and inquiry for personal growth and learning. Advocates through formal consultations or informal discussions to address issues in nursing practice, demonstrating an application of education and knowledge. Identifies modifications or accommodations needed in the delivery of education based on the learner's needs. Shares educational findings, experiences, and ideas with peers and interprofessional colleagues. Mentors nurses new to their roles for the purpose of ensuring successful

enculturation, orientation, competence, and emotional support. Supports acculturation of nurses new to their roles by role modeling, encouraging, advocating, and sharing pertinent information relative to optimal care delivery. Facilitates a work environment supportive of ongoing education of healthcare professionals and interprofessional colleagues. Maintains a professional portfolio that provides evidence of individual competence and lifelong learning. Seeks professional or specialty certification" (ANA, 201a, Kindle location 2343-2361).

Standard 15: Quality of Practice

"The registered nurse contributes to quality nursing practice." Competencies include nursing practice is safe, effective, efficient, equitable, time, person-centered and includes evidence to improve nursing outcomes. "Ensures that nursing practice is safe, effective, efficient, equitable, timely, and person-centered. Incorporates evidence into nursing practice to improve outcomes. Uses creativity and innovation to enhance nursing care. Recommends strategies to improve nursing care quality. Collects data to monitor the quality of nursing practice. Contributes to efforts to improve healthcare efficiency. Provides critical review and evaluation of policies, procedures, and guidelines to improve the quality of health care" (ANA, 2021a, Kindle Location 2426-2431).

Standard 16: Professional Practice Evaluation

"The registered nurse evaluates one's own and others' nursing practice." Competencies include: "Engages in self-reflection and self-evaluation of nursing practice on a regular basis, identifying areas of strength as well as areas in which professional growth would be beneficial. Adheres to the guidance about professional practice as specified in the Nursing: Scope and Standards of Practice and the Code of Ethics for Nurses with Interpretive Statements. Ensures that nursing practice is consistent with regulatory requirements pertaining to licensure, relevant statutes, rules, and regulations. Influences organizational policies and procedures to promote interprofessional evidence-based practice. Provides evidence for practice decisions and actions as part of the evaluation process. Seeks feedback regarding one's own practice from healthcare consumers, peers, colleagues, supervisors, and others. Provides peers and others with constructive feedback regarding their practice or role performance. Takes action to achieve learning needs and goals identified during the evaluation process. Documents the evaluative process, strategies used, and next steps to enhance one's own practice" (ANA, 2021a, Kindle Location 2475-2486).

ANA RECOGNITION OF A NURSING SPECIALTY

In addition to the ANA's Nursing: Scope and Standards of Practice, many specialty nursing organizations have also developed their own scope and standards of practice. These standards often use the ANA's Nursing: Scope and Standards of Practice as a foundation for the development of specialty standards. Nurses practicing in various specialties—such as critical care, nursing professional development, cardiovascular nursing, psychiatric-mental health, medical-surgical nursing, and many others—need to be aware of these standards as well.

In 2021, the ANA published American Nurses Association Recognition of a Nursing Specialty, Approval of a Specialty Nursing Scope of Practice Statement, Acknowledgment of Specialty Nursing Standards of Practice and Affirmation of Focused Practice Competencies (American Nurses Association, 2021b). This document noted that specialization involves focusing on nursing practice in a specific field and "encompasses a specified area of discrete study, research, and practice as defined and recognized by the profession." It includes criteria for recognition as a nursing specialty and the process for attaining such recognition.

An example of a specialty nursing scope of practice is the American Association of Critical Care Nurses (AACN) "Scope and Standards for Progressive and Critical Care Nursing Practice". The standards state: "Standards of clinical practice describe a competent level of nursing practice, while standards of professional performance address the professional activities and behaviors expected of progressive and critical care RNs. All standards include performance expectations, or competencies, that describe how progressive and critical care nurses may demonstrate competent practice and build on the American Nurses Association's (ANA's) document: Nursing: Scope and Standards of Practice (2015)" (AACN, 2019, p2).

The AACN standards are then broken down into **Practice**:

- Standard1: Assessment.
- Standard 2: Diagnosis.
- Standard 3: Outcomes Identification.
- Standard 4: Planning.
- Standard 5: Implementation.
- Standard 6: Evaluation.

Standards for **Professional Performance**:

- Standard 1 Quality of Practice.
- Standard 2: Professional Practice Evaluation.
- Standard 3: Education.
- Standard 4: Communication.
- Standard 5: Ethics.
- Standard 6: Collaboration.
- Standard 7: Evidence-Based practice/research/clinical inquiry.
- Standard 8: Resource Utilization.
- Standard 9: Leadership.
- Standard 10 Environmental Health (AACN, 2019).

Most other professional nursing organizations also have scope and standards of practice. Some examples are: Emergency Nurses Association, Oncology Nurses Association, and the Academy of Medical-Surgical Nurses. A nurse would be wise to obtain the scope and standard for where they work, in addition to the ANA scope and standard.

NURSE PRACTICE ACTS

Nurse practice acts legally govern nursing practice by establishing and enforcing standards that regulate nursing practice. Each state has its own nurse practice act (NPA) defined by state legislature that defines the scope of nursing within that individual state. Although NPAs have many commonalities, they vary from state to state. The federal government has not established jurisdiction over nursing practice. Therefore, each state has legislated its own NPA and nurses are responsible for adhering to the NPA in the state or states in which they practice (Wacko Guido, 2020).

Nursing consideration: The National Council of State Boards of nursing (NCSBN) is a useful resource for nurses wanting to broaden their understanding of nursing standards and nurse practice acts. NCSBN is a not-for-profit organization whose members include the boards of nursing in the 50 states, the District of Columbia, and 4 US territories. NCSBN is the medium through which boards of nursing act and counsel together to provide regulatory excellence for public health, safety, and welfare. It can be accessed at https://www.ncsbn.org/index.htm

The state nurse practice act is an important piece of legislation affecting nursing practice within each state (Wacko Guido, 2020). Nurses are accountable under the legal provisions of their state's nurse practice act and must adhere to these legal mandates when practicing nursing. All states and territories in the United States have enacted NPAs (Wacko Guido, 2020).

Each nurse practice act is enforced by each state's board of nursing (BON). As noted, the specifics among NPAs vary from state to state, but all NPAs describe the following common items (Wacko Guido, 2020):

- Qualification for licensure.
- Nursing titles that are allowed to be used.
- Scope of practice.
- Actions that can or will happen if the nurse does not follow the nursing law (grounds for disciplinary action).
- Definitions.
- Authority, power, and composition of a BON.

Nursing consideration:
Why are Licenses Important: To quote Dr. Julie Socjalski "You do not become a registered nurse because you pass the NCLEX®. Yes, you need to pass it, but that's because a recognized authority, the state board, has been empowered to determine the qualifications for you to sit for licensure as a registered nurse. Your opportunity to become licensed as a registered nurse is something that has been granted by the public. It is, in fact, an agreement with the public. The public has deemed that the practice of nursing is something of such value, something of such significance, something that embodies such expert knowledge, something where they engage with you in their most vulnerable state, that they have decided to establish an agreement with you, your license, that allows you to minister your best to them. It is not something to take lightly, but rather something that calls you to recognize your practice as a sacred commitment to the public (NCSBN, 2018c).

Here is an example of parts of a nursing practice act from New York State:

§6901. Definitions.
As used in section sixty-nine hundred two:

1. "Diagnosing" in the context of nursing practice means that identification of and discrimination between physical and psychosocial signs and symptoms essential to effective execution and management of the nursing regimen. Such diagnostic privilege is distinct from a medical diagnosis.
2. "Treating" means selection and performance of those therapeutic measures essential to the effective execution and management of the nursing regimen, and execution of any prescribed medical regimen.
3. "Human Responses" means those signs, symptoms and processes which denote the individual's interaction with an actual or potential health problem.

§6902. Definition of practice of nursing.

1. The practice of the profession of nursing as a registered professional nurse is defined as diagnosing and treating human responses to actual or potential health problems through such services as case finding, health teaching, health counseling, and provision of care supportive to or restorative of life and well-being, and executing medical regimens prescribed by a licensed physician, dentist or other licensed health care provider legally authorized under this title and in accordance with the commissioner's regulations. A nursing regimen shall be consistent with and shall not vary any existing medical regimen.
2. The practice of nursing as a licensed practical nurse is defined as performing tasks and responsibilities within the framework of case finding, health teaching, health counseling, and provision of supportive and restorative care under the direction of a registered professional nurse or licensed physician, dentist or other licensed health care provider legally authorized under this title and in accordance with the commissioner's regulations.

§6903. Practice of nursing and use of title "registered professional nurse" or "licensed practical nurse".
Only a person licensed or otherwise authorized under this article shall practice nursing and only a person licensed under section sixty-nine hundred four shall use the title "registered professional nurse" and only a person licensed under section sixty-nine hundred five of this article shall use the title "licensed practical nurse". No person shall use the title "nurse" or any other title or abbreviation that would represent to the public that the person is authorized to practice nursing unless the person is licensed or otherwise authorized under this article.

§6904. State board for nursing.
A state board for nursing shall be appointed by the board of regents on recommendation of the commissioner for the purpose of assisting the board of regents and the department on matters of professional licensing and professional conduct in accordance with section sixty-five hundred eight of this title. The board shall be composed of not less than fifteen members, eleven of whom shall be registered professional nurses and four of whom shall be licensed practical nurses all licensed and practicing in this state for at least five years. An executive secretary to the board shall be appointed by the board of regents on recommendation of the commissioner and shall be a registered professional nurse registered in this state.

§6905. Requirements for a license as a registered professional nurse.
To qualify for a license as a registered professional nurse, an applicant shall fulfill the following requirements:

1. **Application**: file an application with the department.
2. ***Education**: have received an education, and a diploma or degree in professional nursing, in accordance with the commissioner's regulations, and in order to continue to maintain registration as a registered professional nurse in New York state, have attained a baccalaureate degree or higher in nursing within ten years of initial licensure in accordance with the commissioner's regulations. The department, in its discretion, may issue a conditional registration to a licensee who fails to complete the baccalaureate degree but who agrees to meet the additional requirement within one year. The fee for such a conditional registration shall be the same as, and in addition to, the fee for the triennial registration. The duration of such conditional registration shall be for one year and may be extended, with the payment of a fee, for no more than one additional year, unless the applicant can show good cause for non-compliance acceptable to the department. Any licensee who is notified of the denial of a registration for failure to complete the additional educational requirements and who practices as a registered professional nurse without such registration may be subject to disciplinary proceedings pursuant to section sixty-five hundred ten of this title.
   * NB Effective June 18, 2019.
3. **Experience**: meet no requirement as to experience.
4. **Examination**: pass an examination satisfactory to the board and in accordance with the commissioner's regulations.
5. **Age**: be at least eighteen years of age.
6. **Citizenship**: meet no requirement as to United States citizenship.
7. **Character**: be of good moral character as determined by the department.
8. **Fees**: pay a fee of one hundred fifteen dollars to the department for admission to a department conducted examination and for an initial license, a fee of forty-five dollars for each reexamination, a fee of seventy dollars for an initial license for persons not requiring admission to a department conducted examination, and a fee of fifty dollars for each triennial registration period (http://www.op.nysed.gov/prof/nurse/article139.htm).

As one can see, in this example, the term RN is defined, what RNs are allowed to do is detailed, and exactly what constitutes the New York State Board of Nursing and the requirements of education are listed. At the writing of this course, no other state required a bachelor's degree (in this case, 10 years after graduating with an associate degree or a diploma) for the practice of Nursing.

Compare this to California:
ARTICLE 2. Scope of Regulation [2725 - 2742]
(Article 2 added by Stats. 1939, Ch. 807.)

2725.

(a) In amending this section at the 1973–74 session, the Legislature recognizes that nursing is a dynamic field, the practice of which is continually evolving to include more sophisticated patient care activities. It is the intent of the Legislature in amending this section at the 1973–74 session to provide clear legal authority for functions and procedures that have common acceptance and usage. It is the legislative intent also to recognize the existence of overlapping functions between physicians and registered nurses and to permit additional sharing of functions within organized health care systems that provide for collaboration between physicians and registered nurses. These organized health care systems include, but are not limited to, health facilities licensed pursuant to Chapter 2 (commencing with Section 1250) of Division 2 of the Health and Safety Code, clinics, home health agencies, physicians' offices, and public or community health services.

(b) The practice of nursing within the meaning of this chapter means those functions, including basic health care, that help people cope with difficulties in daily living that are associated with their actual or potential health or illness problems or the treatment thereof, and that require a substantial amount of scientific knowledge or technical skill, including all of the following:
  (1) Direct and indirect patient care services that ensure the safety, comfort, personal hygiene, and protection of patients; and the performance of disease prevention and restorative measures.
  (2) Direct and indirect patient care services, including, but not limited to, the administration of medications and therapeutic agents, necessary to implement a treatment, disease prevention, or rehabilitative regimen ordered by and within the scope of licensure of a physician, dentist, podiatrist, or clinical psychologist, as defined by Section 1316.5 of the Health and Safety Code.
  (3) The performance of skin tests, immunization techniques, and the withdrawal of human blood from veins and arteries.
  (4) Observation of signs and symptoms of illness, reactions to treatment, general behavior, or general physical condition, and (A) determination of whether the signs, symptoms, reactions, behavior, or general appearance exhibit abnormal characteristics, and (B) implementation, based on observed abnormalities, of appropriate reporting, or referral, or standardized procedures, or changes in treatment regimen in accordance with standardized procedures, or the initiation of emergency procedures.

(c) "Standardized procedures," as used in this section, means either of the following:
  (1) Policies and protocols developed by a health facility licensed pursuant to Chapter 2 (commencing with Section 1250) of Division 2 of the Health and Safety Code through collaboration among administrators and health professionals including physicians and nurses.
  (2) Policies and protocols developed through collaboration among administrators and health professionals, including physicians and nurses, by an organized health care system which is not a health facility licensed pursuant to Chapter 2 (commencing with Section 1250) of Division 2 of the Health and Safety Code.

  The policies and protocols shall be subject to any guidelines for standardized procedures that the Division of Licensing of the Medical Board of California and the Board of Registered Nursing may jointly promulgate. If promulgated, the guidelines shall be administered by the Board of Registered Nursing.

(d) Nothing in this section shall be construed to require approval of standardized procedures by the Division of Licensing of the Medical Board of California, or by the Board of Registered Nursing.

(e) No state agency other than the board may define or interpret the practice of nursing for those licensed pursuant to the provisions of this chapter or develop standardized procedures or protocols pursuant to this chapter, unless so authorized by this chapter, or specifically required under state or federal statute. "State agency" includes every state office, officer, department, division, bureau, board, authority, and commission.

(Amended by Stats. 2003, Ch. 640, Sec. 5. Effective January 1, 2004.)

2725.1.

(a) Notwithstanding any other provision of law, a registered nurse may dispense drugs or devices upon an order by a licensed physician and surgeon or an order by a certified nurse-midwife, nurse practitioner, or physician assistant issued pursuant to Section 2746.51, 2836.1, or 3502.1, respectively, if the registered nurse is functioning within a licensed primary care clinic as defined in subdivision (a) of Section 1204 of, or within a clinic as defined in subdivision (b), (c), (h), or (j) of Section 1206 of, the Health and Safety Code.

(b) No clinic shall employ a registered nurse to perform dispensing duties exclusively. No registered nurse shall dispense drugs in a pharmacy, keep a pharmacy, open shop, or drugstore for the retailing of drugs or poisons. No registered nurse shall compound drugs. Dispensing of drugs by a registered nurse, except a certified nurse-midwife who functions pursuant to a standardized procedure or protocol described in Section 2746.51 or a nurse practitioner who functions pursuant to a standardized procedure described in Section 2836.1, or protocol, shall not include substances included in the California Uniform Controlled Substances Act (Division 10 (commencing with Section 11000) of the Health and Safety Code). Nothing in this section shall exempt a clinic from the provisions of Article 13 (commencing with Section 4180) of Chapter 9.

(c) Nothing in this section shall be construed to limit any other authority granted to a certified nurse-midwife pursuant to Article 2.5 (commencing with Section 2746), to a nurse practitioner pursuant to Article 8 (commencing with Section 2834), or to a physician assistant pursuant to Chapter 7.7 (commencing with Section 3500).

(d) Nothing in this section shall be construed to affect the sites or types of health care facilities at which drugs or devices are authorized to be dispensed pursuant to Chapter 9 (commencing with Section 4000).

(Amended by Stats. 2012, Ch. 460, Sec. 1. (AB 2348) Effective January 1, 2013.)

2725.2.

(a) Notwithstanding any other provision of law, a registered nurse may dispense self-administered hormonal contraceptives approved by the federal Food and Drug Administration (FDA) and may administer injections of hormonal contraceptives approved by the FDA in strict adherence to standardized procedures developed in compliance with subdivision (c) of Section 2725.

(b) The standardized procedure described in subdivision (a) shall include all of the following:

(1) Which nurse, based on successful completion of training and competency assessment, may dispense or administer the hormonal contraceptives.
(2) Minimum training requirements regarding educating patients on medical standards for ongoing women's preventive health, contraception options education and counseling, properly eliciting, documenting, and assessing patient and family health history, and utilization of the United States Medical Eligibility Criteria for Contraceptive Use.
(3) Demonstration of competency in providing the appropriate prior examination comprised of checking blood pressure, weight, and patient and family health history, including medications taken by the patient.
(4) Which hormonal contraceptives may be dispensed or administered under specified circumstances, utilizing the most recent version of the United States Medical Eligibility Criteria for Contraceptive Use.
(5) Criteria and procedure for identification, documentation, and referral of patients with contraindications for hormonal contraceptives and patients in need of a follow-up visit to a physician and surgeon, nurse practitioner, certified nurse-midwife, or physician assistant.
(6) The extent of physician and surgeon supervision required.
(7) The method of periodic review of the nurse's competence.
(8) The method of periodic review of the standardized procedure, including, but not limited to, the required frequency of review and the person conducting that review.
(9) Adherence to subdivision (a) of Section 2242 in a manner developed through collaboration with health care providers, including physicians and surgeons, certified nurse-midwives, nurse practitioners, physician assistants, and registered nurses. The appropriate prior examination shall be consistent with the evidence-based practice guidelines adopted by the federal Centers for Disease Control and Prevention in conjunction with the United States Medical Eligibility Criteria for Contraceptive Use.
(10) If a patient has been seen exclusively by a registered nurse for three consecutive years, the patient shall be evaluated by a physician and surgeon, nurse practitioner, certified nurse-midwife, or physician assistant prior to continuing the dispensation or administration of hormonal contraceptives.

(c) Nothing in this section shall be construed to affect the sites or types of health care facilities at which drugs or devices are authorized to be dispensed pursuant to Chapter 9 (commencing with Section 4000).

(Added by Stats. 2012, Ch. 460, Sec. 2. (AB 2348) Effective January 1, 2013.)

2725.3.

(a) A health facility licensed pursuant to subdivision (a), (b), or (f), of Section 1250 of the Health and Safety Code shall not assign unlicensed personnel to perform nursing functions in lieu of a registered nurse and may not allow unlicensed personnel to perform functions under the direct clinical supervision of a registered nurse that require a substantial amount of scientific knowledge and technical skills, including, but not limited to, any of the following:
(1) Administration of medication.
(2) Venipuncture or intravenous therapy.
(3) Parenteral or tube feedings.
(4) Invasive procedures including inserting nasogastric tubes, inserting catheters, or tracheal suctioning.
(5) Assessment of patient condition.
(6) Educating patients and their families concerning the patient's health care problems, including post discharge care.
(7) Moderate complexity laboratory tests.

(b) This section shall not preclude any person from performing any act or function that he or she is authorized to perform pursuant to Division 2 (commencing with Section 500) or pursuant to existing statute or regulation as of July 1, 1999.

(Added by Stats. 1999, Ch. 945, Sec. 2. Effective January 1, 2000.)

2725.4.

Notwithstanding any other provision of this chapter, the following shall apply:

(a) In order to perform an abortion by aspiration techniques pursuant to Section 2253, a person with a license or certificate to practice as a nurse practitioner or a certified nurse-midwife shall complete training recognized by the Board of Registered Nursing. Beginning January 1, 2014, and until January 1, 2016, the competency-based training protocols established by Health Workforce Pilot Project (HWPP) No. 171 through the Office of Statewide Health Planning and Development shall be used.

(b) In order to perform an abortion by aspiration techniques pursuant to Section 2253, a person with a license or certificate to practice as a nurse practitioner or a certified nurse-midwife shall adhere to standardized procedures developed in compliance with subdivision (c) of Section 2725 that specify all of the following:
(1) The extent of supervision by a physician and surgeon with relevant training and expertise.
(2) Procedures for transferring patients to the care of the physician and surgeon or a hospital.
(3) Procedures for obtaining assistance and consultation from a physician and surgeon.
(4) Procedures for providing emergency care until physician assistance and consultation are available.
(5) The method of periodic review of the provisions of the standardized procedures.

(c) A nurse practitioner or certified nurse-midwife who has completed training and achieved clinical competency through HWPP No. 171 shall be authorized to perform abortions by aspiration techniques pursuant to Section 2253, in adherence to standardized procedures described in subdivision (b).

(d) It is unprofessional conduct for any nurse practitioner or certified nurse-midwife to perform an abortion by aspiration techniques pursuant to Section 2253 without prior completion of training and validation of clinical competency.

(Added by Stats. 2013, Ch. 662, Sec. 2. (AB 154) Effective January 1, 2014.)

2725.5.

This chapter does not prohibit:

(a) Gratuitous nursing of the sick by friends or members of the family.

(b) Incidental care of the sick by domestic workers or by persons primarily employed as housekeepers as long as they do not practice nursing within the meaning of this chapter.

(c) Domestic administration of family remedies by any person.

(d) Nursing services in case of an emergency. "Emergency," as used in this subdivision includes an epidemic, pandemic, or other public disaster.

(e) The performance by a person of the duties required in the physical care of a patient or carrying out medical orders prescribed by a licensed physician, provided the person shall not in any way assume to practice as a professional, registered, graduate, or trained nurse.

(Amended by Stats. 2021, Ch. 628, Sec. 5. (AB 1532) Effective January 1, 2022.)

2727.5.
A person licensed under this chapter who in good faith renders emergency care at the scene of an emergency which occurs outside both the place and the course of that person's employment shall not be liable for any civil damages as the result of acts or omissions by that person in rendering the emergency care.

This section shall not grant immunity from civil damages when the person is grossly negligent.
(Amended by Stats. 1984, Ch. 1391, Sec. 2.)

2728.
If adequate medical and nursing supervision by a professional nurse or nurses is provided, nursing service may be given by attendants, psychiatric technicians, or psychiatric technician interim permittees in institutions under the jurisdiction of the State Department of State Hospitals or the State Department of Developmental Services or subject to visitation by the State Department of Public Health or the Department of Corrections and Rehabilitation. Services so given by a psychiatric technician shall be limited to services which he or she is authorized to perform by his or her license as a psychiatric technician. Services so given by a psychiatric technician interim permittee shall be limited to skills included in his or her basic course of study and performed under the supervision of a licensed psychiatric technician or registered nurse.

The Director of State Hospitals, the Director of Developmental Services, and the State Public Health Officer shall determine what shall constitute adequate medical and nursing supervision in any institution under the jurisdiction of the State Department of State Hospitals or the State Department of Developmental Services or subject to visitation by the State Department of Public Health.

Notwithstanding any other provision of law, institutions under the jurisdiction of the State Department of State Hospitals or the State Department of Developmental Services may utilize graduates of accredited psychiatric technician training programs who are not licensed psychiatric technicians or psychiatric technician interim permittees to perform skills included in their basic course of study when supervised by a licensed psychiatric technician or registered nurse, for a period not to exceed nine months.
(Amended by Stats. 2012, Ch. 24, Sec. 1. (AB 1470) Effective June 27, 2012.)

2728.5.
Except for those provisions of law relating to directors of nursing services, nothing in this chapter or any other provision of law shall prevent the utilization of a licensed psychiatric technician or psychiatric technician interim permittee in performing services used in the care, treatment, and rehabilitation of mentally ill, emotionally disturbed, or developmentally disabled persons within the scope of practice for which he or she is licensed or authorized in facilities under the jurisdiction of the State Department of State Hospitals or the State Department of Developmental Services or licensed by the State Department of Public Health, that he or she is licensed to perform as a psychiatric technician, or authorized to perform as a psychiatric technician interim permittee including any nursing services under Section 2728, in facilities under the jurisdiction of the State Department of State Hospitals or the State Department of Developmental Services or subject to visitation by the State Department of Public Health.
(Amended by Stats. 2012, Ch. 24, Sec. 2. (AB 1470) Effective June 27, 2012.)

2729.
Nursing services may be rendered by a student when these services are incidental to the course of study of one of the following:
(a) A student enrolled in a board-approved prelicensure program or school of nursing.
(b) A nurse licensed in another state or country taking a board-approved continuing education course or a post-licensure course.
(Amended by Stats. 1978, Ch. 212.)

2730.
If he does not represent or hold himself out as a professional nurse licensed to practice in this State and if he has an engagement, made in another State or country, requiring him to accompany and care for a patient temporarily residing in this State during the period of such engagement, a nurse legally qualified by another State or country may give nursing care to such patient in this State.
(Repealed and added by Stats. 1939, Ch. 807.)

2731.
This chapter does not prohibit nursing or the care of the sick, with or without compensation or personal profit, when done by the adherents of and in connection with the practice of the religious tenets of any well recognized church or denomination, so long as they do not otherwise engage in the practice of nursing.
(Repealed and added by Stats. 1939, Ch. 807.)

2732.
No person shall engage in the practice of nursing, as defined in Section 2725, without holding a license which is in an active status issued under this chapter except as otherwise provided in this act.

Every licensee may be known as a registered nurse and may place the letter "R.N." after his name.
(Amended by Stats. 1976, Ch. 1053.)

2732.05.
(a) Every employer of a registered nurse, every employer of a registered nurse required to hold any board-issued certification, and every person acting as an agent for such a nurse in obtaining employment, shall ascertain that the nurse is currently authorized to practice as a registered nurse or as a registered nurse pursuant to a board-issued certification within the provisions of this chapter. As used in this section, "board-issued certification" includes, but is not limited to, certification as a nurse practitioner, nurse practitioner with a furnishing number, nurse anesthetist, nurse midwife, nurse midwife with a furnishing number, public health nurse, clinical nurse specialist, or board listed psychiatric mental health nurse.
(b) Every employer of a temporary licensee or interim permittee and every person acting as an agent for a temporary licensee or interim permittee in obtaining employment shall ascertain that the person is currently authorized to practice as a temporary licensee or interim permittee.
(c) As used in this section, the term "agent" includes, but is not limited to, a nurses registry and a traveling nurse agency.

Examination by an employer or agent of evidence satisfactory to the board showing the nurse's, licensee's, or permittee's current authority to practice under this chapter, prior to employment, shall constitute a determination of authority to so practice.

Nothing in this section shall apply to a patient, or other person acting for a specific patient, who engages the services of a registered nurse or temporary licensee to provide nursing care to a single patient.
(Amended by Stats. 2007, Ch. 588, Sec. 37. Effective January 1, 2008.)

2732.1.
(a) An applicant for license by examination shall submit a written application in the form prescribed by the board. Upon approval of the application, the board may issue an interim permit authorizing the applicant to practice nursing pending the results of the first licensing examination

following completion of his or her nursing course or for a maximum period of six months, whichever occurs first.

If the applicant passes the examination, the interim permit shall remain in effect until a regular renewable license is issued by the board. If the applicant fails the examination, the interim permit shall terminate upon notice thereof by first-class mail.

(b) The board upon written application may issue a license without examination to any applicant who is licensed or registered as a nurse in a state, district or territory of the United States or Canada having, in the opinion of the board, requirements for licensing or registration equal to or higher than those in California at the time the application is filed with the Board of Registered Nursing, if he or she has passed an examination for the license or registration that is, in the board's opinion, comparable to the board's examination, and if he or she meets all the other requirements set forth in Section 2736.

(c) Each application shall be accompanied by the fee prescribed by this chapter for the filing of an application for a regular renewable license.

The interim permit shall terminate upon notice thereof by first-class mail, if it is issued by mistake or if the application for permanent licensure is denied.

(Amended by Stats. 1994, Ch. 26, Sec. 57.5. Effective March 30, 1994.)

2733.

(a) (1)

(A) Upon approval of an application filed pursuant to subdivision (b) of Section 2732.1, and upon the payment of the fee prescribed by subdivision (k) of Section 2815, the board may issue a temporary license to practice professional nursing, and a temporary certificate to practice as a certified public health nurse for a period of six months from the date of issuance.

(B) Upon approval of an application filed pursuant to subdivision (b) of Section 2732.1, and upon the payment of the fee prescribed by subdivision (d) of Section 2838.2, the board may issue a temporary certificate to practice as a certified clinical nurse specialist for a period of six months from the date of issuance.

(C) Upon approval of an application filed pursuant to subdivision (b) of Section 2732.1, and upon the payment of the fee prescribed by subdivision (e) of Section 2815.5, the board may issue a temporary certificate to practice as a certified nurse-midwife for a period of six months from the date of issuance.

(D) Upon approval of an application filed pursuant to subdivision (b) of Section 2732.1, and upon the payment of the fee prescribed by subdivision (d) of Section 2830.7, the board may issue a temporary certificate to practice as a certified nurse anesthetist for a period of six months from the date of issuance.

(E) Upon approval of an application filed pursuant to subdivision (b) of Section 2732.1, and upon the payment of the fee prescribed by subdivision (p) of Section 2815, the board may issue a temporary certificate to practice as a certified nurse practitioner for a period of six months from the date of issuance.

(2) A temporary license or temporary certificate shall terminate upon notice thereof by certified mail, return receipt requested, if it is issued by mistake or if the application for permanent licensure is denied.

(b) Upon written application, the board may reissue a temporary license or temporary certificate to any person who has applied for a regular renewable license pursuant to subdivision (b) of Section 2732.1 and who, in the judgment of the board has been excusably delayed in completing their application for or the minimum requirements for a regular renewable license, but the board may not reissue a temporary license or temporary certificate more than twice to any one person.

(c) The board shall prominently display on the front page of its website the availability of temporary licenses and certificates pursuant to this section.

(Amended by Stats. 2021, Ch. 628, Sec. 6. (AB 1532) Effective January 1, 2022.)

2734.

Upon application in writing to the board and payment of the biennial renewal fee, a licensee may have his license placed in an inactive status for an indefinite period of time. A licensee whose license is in an inactive status may not practice nursing. However, such a licensee does not have to comply with the continuing education standards of Section 2811.5.

(Added by Stats. 1976, Ch. 1053.)

2736.

(a) An applicant for licensure as a registered nurse shall comply with each of the following:

(1) Have completed such general preliminary education requirements as shall be determined by the board.

(2) Have successfully completed the courses of instruction prescribed by the board for licensure, in a program in this state accredited by the board for training registered nurses, or have successfully completed courses of instruction in a school of nursing outside of this state which, in the opinion of the board at the time the application is filed with the Board of Registered Nursing, are equivalent to the minimum requirements of the board for licensure established for an accredited program in this state.

(3) Not be subject to denial of licensure under Section 480.

(b) An applicant who has received his or her training from a school of nursing in a country outside the United States and who has complied with the provisions of subdivision (a), or has completed training equivalent to that required by subdivision (a), shall qualify for licensure by successfully passing the examination prescribed by the board.

(Amended by Stats. 1992, Ch. 1289, Sec. 21. Effective January 1, 1993.)

2736.1.

(a) The course of instruction for an applicant who matriculates on or after September 1, 1985, shall include training in the detection and treatment of alcohol and chemical substance dependency.

(b) The course of instruction for an applicant who matriculates on or after January 1, 1995, shall include training in the detection and treatment of client abuse, including, but not limited to, spousal or partner abuse. The requirement for coursework in spousal or partner abuse detection and treatment shall be satisfied by, and the board shall accept in satisfaction of the requirement, a certification from the chief academic officer of the educational institution from which the applicant graduated that the required coursework is included within the institution's required curriculum for graduation.

(Amended by Stats. 1993, Ch. 1234, Sec. 5. Effective January 1, 1994.)

2736.5.

(a) (1) The board shall adopt regulations to require that, on and after January 1, 2022, all continuing education courses for licensees under this chapter contain curriculum that includes the understanding of implicit bias.

(2) Beginning January 1, 2023, continuing education providers shall ensure compliance with paragraph (1). Beginning January 1, 2023, the board shall audit continuing education providers, pursuant to Section 2811.5.

(b) Notwithstanding the provisions of subdivision (a), a continuing education course dedicated solely to research or other issues that does not include a direct patient care component is not required to contain curriculum that includes implicit bias in the practice of nursing.
(c) In order to satisfy the requirements of subdivision (a), continuing education courses shall address at least one or a combination of the following:
    (1) Examples of how implicit bias affects perceptions and treatment decisions of licensees, leading to disparities in health outcomes.
    (2) Strategies to address how unintended biases in decision-making may contribute to health care disparities by shaping behavior and producing differences in medical treatment along lines of race, ethnicity, gender identity, sexual orientation, age, socioeconomic status, or other characteristics.

(Added by Stats. 2019, Ch. 417, Sec. 3. (AB 241) Effective January 1, 2020.)

2736.6.
The board shall determine by regulation the additional preparation in nursing, in a school approved by the board, which is required for a vocational nurse, licensed under Chapter 6.5 (commencing with Section 2840) of this division, to be eligible to take the examination for licensure under this chapter as a registered nurse. The board shall not require more than 30 units in nursing and related science subjects to satisfy such preparation.
(Added by Stats. 1969, Ch. 1541.)

2737.
An applicant for a license authorizing him to practice nursing in this State under this chapter, upon the filing of his application shall pay the fee required by this chapter.
(Repealed and added by Stats. 1939, Ch. 807.)

2738.
The board shall hold not less than two examinations each year at such times and places as the board may determine.
(Amended by Stats. 1953, Ch. 1174.)

2740.
Examinations shall be written, but in the discretion of the board may be supplemented by an oral or practical examination in such subjects as the board determines. All examinations shall be conducted by such persons and in such manner and under such rules and regulations as the board may prescribe.

The board shall finally pass or reject all applicants. Its actions shall be final and conclusive and not subject to review by any court or other authority.
(Added by Stats. 1939, Ch. 807.)

2741.
An application for reexamination shall be accompanied by the fees prescribed by this chapter.
(Amended by Stats. 2005, Ch. 621, Sec. 38. Effective January 1, 2006.)

2742.
The board shall issue a license to each applicant who passes the examination and meets all other licensing requirements. The form of the license shall be determined in accordance with Section 164. (California Legislative Information, n.d.)

As one can see, the California Nurse Practice act is much more detailed in describing what a nurse can and cannot do, than the New York State NPA. For example, issues of delegation are contained in the California nurse practice act, whereas in New York state this information is not readily available on the BON and Office of Professions website. On the other hand, New York State protects the title "Registered Professional Nurse", whereas California does not.

Nursing consideration: Ignorance of the law as it relates to the NPA in a nurse's state is never an excuse for failing to follow its mandates. Nurses can find the mandates by logging on to the website of their state board of nursing. The National Council of State Boards of nursing at https://www.ncsbn.org/index.htm has information about how to access all state boards of nursing in the United States.

Self-Assessment Quiz Question #3

Who enforces a nursing practice act?
a. American Nurses Association.
b. Specialty nursing practice groups.
c. International Council of Nurses.
d. Boards of Nursing.

COMMON VIOLATIONS OF NURSE PRACTICE ACTS

The National Council of State Boards of Nursing list the following as Violations of Nurse Practice Acts (NCSB, 2022a). Please note this is not an inclusive list but examples.

Practice Related
- Failure to assess changes in condition.
- Failure to implement appropriate or ordered interventions.
- Failure to accurately document assessment information or nursing care provided.
- Failure to follow the "Five Rights" of drug administration (right patient., right time and frequency, right dose, right route of administrations and right drug.

Drug Related
- Misappropriation of medications intended for clients.
- Failure to document or falsely document that medications were administered to clients.
- Engagement in intemperate use of medications causing impairment.
- Attempting to obtain drugs by communicating or presenting unauthorized prescriptions to pharmacies.

Boundary Violations
- Sharing stories of personal challenges to entice gifts or money from clients.
- Establishing gratifying relationships with current or former clients.
- Sexual misconduct.
- Touching the patient or having the patient touch the nurse in a sexual way.

Abuse
- Hitting, slapping threats and verbal assailments.

Fraud
- Over statement of credentials of experience.
- Claiming unworked hours or visits on payroll.
- Falsely documenting care or procedures when related to payment.
- Submitting inaccurate billing records to defraud insurance companies.

Self-Assessment Quiz Question #4

Which of the following is a violation of a nurse practice act according to NCSBN?
a. Following the Five Rights of Medication Administration.
b. Accurately documenting care.
c. Failure to refuse some cupcakes from a family member when you did not ask.
d. Stating you have a certification when it has just expired.

NURSE LICENSURE COMPACT (NLC)

To be able to provide nursing care where it is needed and to decrease the need for many different state-issued RN licenses, the NCSBN developed the *Nurse Licensure Compact* which began in 2000 (Oyeleve, 2019). Historically, each state had its own rules and regulations for RN practice, and requirements for sitting for licensure exams. For nurses who wanted to work in different states, the nurse had to meet the individual state requirements and apply for a license. This required a lot of time, energy, and money for nurses. This also prevented state BONs from disciplining a nurse who harmed a patient working remotely from another state. Finally, in 1995, the Pew Commission reported all 50 states entry into practice requirements were not standardized (Oyeleve, 2019).

In 2000, the first states to pass legislation and agree to the NLC were Maryland, Texas, Utah and Wisconsin. Not all states and nurses were in agreement with this. There were concerns related to different state regulations for practice (not just licensure), state sovereignty on who could practice in the state, and public safety. Another concern was some inconsistencies between requirements, especially related to past criminal issues, where some states would bar a candidate for license and those listed in the NLC (Oyeleve, 2019).

Even though there were issues and concerns with the NLC, states did join. However, in 2015 when the North Carolina BON and state legislature were thinking about joining, there were ongoing concerns. The NLC did not guarantee competency of the nurses between the different states (Oyeleve, 2019). Given this issue, the Nation Council of State Boards of Nursing examined all the concerns and developed the Enhanced Nursing Licensure Compact (eNLC). The eNLC was designed to replace the NLC with requirements that would address issues raised and improve confidence. The eNLC went into effect in July 2017 with a final implementation date in January, 2018 to allow nurses with NLCs to apply for eNLCs (Oyeleve, 2019).

The eNLC has uniform requirements and federal background checks for any nurse applying for an eNLC if their state is a member. The eNLC also standardized key disciplinary provisions among all the member states and required reporting of all disciplinary actions against a nurse within the eNLC (Oyeleve, 2019).

The following are the uniform requirements:

1. Meets the requirements for licensure in the home state (state of residency).
2. (a) Has graduated from a board-approved education program; or (b) Has graduated from an international education program (approved by the authorized accrediting body in the applicable country and verified by an independent credentials review agency).
3. Has passed an English proficiency examination (applies to graduates of an international education program not taught in English or if English is not the individual's native language).
4. Has passed an NCLEX-RN® or NCLEX-PN® Examination or predecessor exam.
5. Is eligible for or holds an active, unencumbered license (i.e., without active discipline).
6. Has submitted to state and federal fingerprint-based criminal background checks.
7. Has not been convicted or found guilty, or has entered into an agreed disposition, of a felony offense under applicable state or federal criminal law.
8. Has no misdemeanor convictions related to the practice of nursing (determined on a case-by-case basis).
9. Is not currently a participant in an alternative program.
10. Is required to self-disclose current participation in an alternative program.
11. Has a valid United States Social Security number (National Council of State Boards of Nursing, n.d.a).

What does the eNLC mean for RNs? Besides the requirements above, the RN who is applying for an eNLC is also required to do the following:

1. On all application forms for multistate licensure in a party state, an applicant shall declare a primary state of residence.
2. A nurse who changes primary state of residence to another party state shall apply for a license in the new party state when the nurse declares to be a resident of the state and obtains privileges not ordinarily extended to nonresidents of the state.
3. A nurse shall not apply for a single state license in a party state while the nurse holds a multistate license in another party state (National Council of State Boards of Nursing, 2021).

What it *does* allow nurses to do is practice across borders in other eNLC states, practice telenursing in all eNLC states, quickly respond to disasters in all eNLC states, and allow nurse educators with an eNLC to teach via distance education in all eNLC states (National Council of State Boards of Nursing, n.d.b).

THE BON AND DISCIPLINARY CASES

Most nurses are competent individuals whose primary goal is to provide safe, appropriate nursing care that enhances patient outcomes. However, when problems arise with a nurse's performance, a complaint may be filed with the BON, which is responsible for reviews and action regarding complaints. The BON may act only if sufficient evidence exists that the nurse violated state laws or regulations (National Council of State Boards of Nursing, 2022b).

Nursing consideration: In any given year there are over 12,000 nurses with adverse actions against them reported to the National Practitioner Data Bank. The National Practitioner Data Bank is managed by the US department of Health & Human Services (2022).

What types of disciplinary action can be taken by a BON? The BON may act to impose such actions as the following (National Council of State Boards of Nursing, 2022b):

- Fines.
- Civil penalties.
- Public reprimand or censure for minor violations of the NPA.
- Referral to an alternative-to-discipline program for practice monitoring and recovery support. This may be offered to nurses with drug or alcohol dependence, or another type of mental or physical condition.
- Mandated monitoring, remediation, education, or other provisions established to meet the needs of specific situations.
- Limitations on practice such as restricting roles, the practice setting, and/or hours that may be worked.

Nursing consideration: The actions taken by the BON are considered public information. Some BONs, believing that it is in the public interest to publicize actions taken against nurses, communicate actions via such means as newsletters and websites (National Council of State Boards of Nursing, 2022b).

Rules and position statements

Nurses should also be aware of BON rules, regulations, and position statements. BONs have the authority to develop administrative rules to clarify laws. Rules must be consistent with the NPA, but cannot go beyond the law. For example, an NPA may mandate that nurses' practice safely and competently, and a rule related to this mandate may specify a plan for ongoing continuing education so that nurses achieve and maintain their competency.

Position statements are a means of providing direction for nurses on issues relevant to nursing practice and consumer safety. Position statements do not have the force of law, but are designed to act as education resources that help licensed nurses and other interested persons in determining safe, appropriate, and legal practice (Texas Board of Nursing, 2022). Examples of position statements include death pronouncements, carrying out orders from physician assistants, and performance of laser therapy by RNs. Position statements are generally posted on the BON website for review by nurses and the public.

Delegation

Delegating patient-care responsibilities to another RN, LPN/LVN, or unlicensed assistive personnel such as nursing assistants often triggers legal and ethical questions among those nurses doing the delegating. Delegation is an important responsibility. To properly delegate a task, the nurse must know the skills and knowledge level of the delegatee and that the task being delegated falls within the delegatee's scope of practice (National Council of State Board of Nursing and American Nurses Association, 2019.).

Even though the RN may delegate a task, they retain responsibility for the conduct and actions of delegatees. RNs cannot delegate their own accountability. They retain responsibility for the patient care delivered by the LPNs and nursing assistants (National Council of State Board of Nursing and American Nurses Association, 2019).

However, this does not mean that delegatees do not have responsibility and accountability for their own actions. It is important to remember that delegatees still maintain responsibility and accountability for their own actions.

Nursing consideration: It is the RNs responsibility to check the NPA in their states to determine which tasks may and may not be delegated.

The "Rights" of delegation

Safe and appropriate delegation of tasks requires that the RN adhere to "rights" of delegation. The American Nurses Association and the National Council of State Boards of Nursing have published guidelines for delegation (American Nurses Association & National Council of State Boards of Nursing, 2019):

- **Right task**: "The activity falls within the delegatee's job description or is included as part of the established written policies and procedures of the nursing practice setting. The facility needs to ensure the policies and procedures describe the expectations and limits of the activity and provide any necessary competency training."
- **Right circumstance**: "The health condition of the patient must be stable. If the patient's condition changes, the delegatee must communicate this to the licensed nurse, and the licensed nurse must reassess the situation and the appropriateness of the delegation."
- **Right person**: "The licensed nurse, along with the employer and the delegatee, is responsible for ensuring that the delegatee possesses the appropriate skills and knowledge to perform the activity."
- **Right directions and communication**: "Each delegation situation should be specific to the patient, the licensed nurse, and the delegatee. The licensed nurse is expected to communicate specific instructions for the delegated activity to the delegatee; the delegatee, as part of two-way communication, should ask any clarifying questions. This communication includes any data that need to be collected, the method for collecting the data, the time frame for reporting the results to the licensed nurse, and additional information pertinent to the situation. The delegatee must understand the terms of the delegation and must agree to accept the delegated activity. The licensed nurse should ensure that the delegatee understands that she or he cannot make any decisions or modifications in carrying out the activity without first consulting the licensed nurse."
- **Right supervision and evaluation**: "The licensed nurse is responsible for monitoring the delegated activity, following up with the delegatee at the completion of the activity, and evaluating patient outcomes. The delegatee is responsible for communicating patient information to the licensed nurse during the delegation situation. The licensed nurse should be ready and available to intervene as necessary. The licensed nurse should ensure appropriate documentation of the activity is completed."

Case study #2

Charlotte is a newly licensed RN. One of the LPNs under her supervision has many years of nursing experience and is quite resentful: "Why do I have to take orders from this new kid? I've been a nurse longer than she's been alive!" Charlotte does her best to not only be friendly, but also to adhere to the scope and standards of practice for both RNs and LPNs. On one particularly busy day, the LPN insists that she can handle the arrival of a postoperative patient without any help. The patient is young and healthy and underwent surgical intervention for a compound fracture of the left femur. Charlotte knows that it is her responsibility to conduct assessments, but she is especially busy with several patients whose conditions are deteriorating. At the end of their shift, the LPN remarks, "That guy with the compound fracture sure is a whiner. He's complaining about a cough and chest pain. He had a bad cold before surgery, so what does he expect!" Alarmed, Charlotte and the charge nurse for the oncoming shift rush to check on the patient, who is found to be cyanotic and unresponsive. He is rushed to the critical care unit with a diagnosis of fat embolism.

Nursing consideration: Nurses who practice in more than one state should know the scope of practice and the NPA in each state in which they practice or hold licensure.

Questions

1. Who is accountable for this lack of proper patient care?
2. How could this have been avoided?
3. Which of the "rights" of delegation were violated?

Discussion

Both Charlotte and the LPN are accountable for the lack of proper patient care. As the RN, Charlotte is the person who needs to conduct the assessment. If she was "too busy" because her other patients were deteriorating, she should have gone to the charge nurse and either asked for another RN to be assigned to the new patient, or ask the charge nurse to assess the patient, which could have prevented the patient from deteriorating. The LPN, while experienced, does not have the authority to conduct an assessment on a patient. The LPN should have not offered to assess the patient, as she should have known this was not part of her scope of practice. The LPN should have let Charlotte know the patient was experiencing signs and symptoms that were not associated with a normal post-operative course (chest pain and short of breath), no matter who did the assessment. LPNs are required to report to the supervising RN any changes in a patient's vital signs. The principles of delegation that were violated were all of them. Charlotte delegated a task (assessment) that was not in the scope of practice of the LPN. Because of this Charlotte did not know if the patient was stable, and the principles state that only stable patients may be delegated to LPNs. There also seemed to be a breakdown in communication from Charlotte's part in what to delegate. Finally, there was no supervision on Charlotte's part. The LPN also has not followed the rights of delegation. The LPN accepted an assignment for which she may not have been qualified for and

did not alert Charlotte to changes in the patient's status (or out of normal signs and symptoms for postoperative course). Thus, every right of delegation was violated.

INTERNAL POLICIES AND STANDARDS

Each healthcare institution sets the policies and procedures for that particular institution. These polices cannot expand standards of practice as stated in the state's nurse practice act. However, an institution can set narrower limits on practice of the RN. These polices usually include education, experience, and other directives that explain the scope of practice for the RN (Wacko Guido, 2020).

For a nurse to be practicing within their scope of practice, they must be practicing within the ANA code of ethics, ANA scope and standards of nursing practice, the respective state nursing practice act, and the healthcare organization's policies and procedures. Thus, the RN is accountable to a number of scopes of practice.

Case study #3

Shannon is a newly licensed registered nurse. During orientation to her new role as an RN on an oncology unit, Shannon is told that she must become familiar with (and stay familiar with) the scope and standards of nursing practice of the state in which she practices. Shannon has studied, in general terms, scope and standards of nursing practice during her years in a BSN program. However, as she is now a licensed professional, Shannon wants to understand, in more depth, the scope of practice that defines nursing actions.

Questions:

1. Where should Shannon look for her scope of practice?
2. What other information should Shannon review to be within her scope of practice?

Discussion:

Shannon needs to review a number of documents to understand what her scope of practice is. First, she should look at her state's scope of practice for RNs, including what is on the state's BON website. This will provide her with the foundation of what she is allowed to do within the state she is practicing in. The ANA scope and practice standards also need to be reviewed. Shannon should also look at the website for the Oncology Nurses Association to see if there is specialty scope of practice information, she should familiarize herself with. Finally, Shannon needs to review the policies and procedures of both the hospital and unit where she is working.

LEGAL IMPLICATIONS OF NURSING PRACTICE

Ethics and law overlap to a certain extent. Codes of ethics generally describe a vision that exceeds what is expected under prevailing laws. The law says what must be done. Ethical codes provide a picture of what ought to be done. Therefore, ethical conduct means that, at the very least, a nurse or other healthcare professional performs duties legally and acts with integrity and fidelity according to the profession's principles of ethical behavior (Wacko Guido, 2020).

Nurses should be familiar with legal terms that are the basis for safe practice. Below is a list of terms nurses should be familiar with and examples of nursing practice where the term would be applied.

Advocacy

The nurse speaks on behalf of the patient for the patient's right(s) to receive appropriate care, and intervenes on behalf of the patient in situations where there are changes in health status that may or may not affect care (Wacker Guido, 2020).

Assault

Assault is action that placed another person in a position of being touched in a manner that is considered offensive, insulting, or physically injurious without consent (Wacker Guido, 2020). An example of this would be threatening a patient with an injection if the patient does not do something.

Battery

Battery is harmful or unwarranted contact with someone (Wacker Guido, 2020). An example of this would be holding a patient down forcibly to insert an intravenous catheter when a patient has refused the procedure.

Causation

An injury must have occurred that was directly due to the action(s) of the nurse. This can be cause-in-fact or proximate cause (Wacker Guido, 2020). An example of cause-in-fact would be administering an incorrect medication resulting in an adverse effect. An example of a proximate cause would be a patient falling out of bed after being given a narcotic and the bedrails were not in correct position. While cause-in-fact is a direct link, proximate causation has foreseeability connected to the concept (Wacker Guido, 2020).

Duty

Duty refers to a legal duty to the patient - an obligation recognized and enforceable by law. Legal duty to a patient exists as soon as the nurse–patient relationship is established, showing that the patient relies on the nurse for the delivery of safe and competent care. The basis for the element of duty is the professional standards of care that the nurse is responsible for adhering to. As previously noted, the NPA governs nursing practice. Thus, duty to the patient requires that the nurse adhere to the NPA, ANA standards of care and code of ethics, specialty nursing organization standards, and organizational policies and standards (Wacker Guido, 2020).

Breach of duty

Breach of duty is defined as a violation of nursing standards of care. The plaintiff's attorney will provide evidence to support the claim that a breach of duty occurred. Such evidence can be obtained from written documentation on the plaintiff's medical record, diagnostic test results, photos, and testimony from witnesses, including hospital personnel, other nurses, experts in the field, and the plaintiff's family members. Breach of duty may also be claimed if a nurse abandons a patient after assuming a duty to them (Wacker Guido, 2020).

Some states actually define what abandonment is and is not, so nurses should be familiar with any state regulations.

Abandonment

A specific type of breach of duty is Abandonment. For example, New York law prohibits nurses from committing what is commonly referred to as "abandonment" or "patient abandonment". Abandonment typically occurs when:

- A nurse who has accepted a patient care assignment and is responsible for patient care abandons or neglects a patient needing immediate professional care without making reasonable arrangements for the continuation of such care.
- A nurse abandons nursing employment without providing reasonable notice and under circumstances that seriously impair the delivery of professional care to patients.

The New York State Education Department (NYSED) evaluates each complaint of patient abandonment individually, taking into consideration the unique circumstances of each situation. Key considerations for determining whether or not a nurse has "abandoned" a patient include:

- Whether the nurse accepted the patient assignment, which established a nurse-patient relationship.
- Whether the nurse provided reasonable notice when severing the nurse-patient relationship.
- Whether reasonable arrangements were made for the continuation of nursing care by others when proper notification was given.

Some examples of patient abandonment include the following:

- A nurse assigned to provide resident care in a nursing home walks off duty in the middle of the shift without telling anyone and does not return, seriously impairing the delivery of nursing care to the residents.
- A circulating nurse leaves the operating room during a surgical procedure without transferring responsibility for nursing care to another qualified healthcare practitioner, seriously impairing the delivery of surgical care.
- A private RN suddenly stops providing nursing care to a home-bound patient without notifying anyone and without making any arrangements to ensure that the patient will continue to receive needed care.
- A nurse who works on a hospital pediatric unit informs the unit clerk that she must leave work immediately. The nurse immediately leaves the hospital for the day without telling anyone else, even though some of the nurse's patients require immediate nursing care. Since the nurse failed to transfer her responsibility for the nursing care for her patients to another qualified healthcare practitioner by reporting on her patients, other hospital staff were unaware of the immediate care needs of the nurse's patients.

The following situations are **not** usually considered to be patient abandonment:

- A nurse promptly refuses her supervisor's request to float to an unfamiliar hospital unit because she lacks the experience to competently carry out the assignment. The hospital did not provide the nurse with any training or orientation to the hospital unit and does not modify the nursing assignment (so that the nurse who must float provides only services the nurse is competent to perform).
- An LPN immediately refuses their supervisor's request to float to a hospital Emergency Room to perform triage (which is outside the legal scope of practice of an LPN).
- In a non-emergency situation, a nurse promptly refuses their supervisor's request to accept an assignment to work additional hours beyond the posted work schedule (i.e., a double shift).
- In a non-emergency situation, a nurse completes their assigned shift at a nursing home and then notifies their employer that they are quitting, effective immediately.
- The nurse fails to return to work at a nursing home after a scheduled leave of absence and the nursing home is not experiencing staff shortages (NYSED, n.d.).
- A nurse agrees to work 4 hours longer than their scheduled shift because of an emergency. After working overtime, the nurse refuses the supervisor's request to work additional hours because the nurse is too exhausted to continue to practice safely and informs their supervisor that they are too exhausted to work safely.

Contributory negligence
Contributory negligence refers to the patient's acts or omissions that contribute to their claimed injury. Forms of contributory negligence include the patient's failure to take reasonable care or to follow physician or discharge orders to prevent injury. A finding of contributory negligence may prevent the injured party from recovering damages in a lawsuit. An example of contributory negligence includes the patient's right to refuse care (Wacko Guido, 2020).

False imprisonment
False imprisonment means holding a person against their will with an unjustifiable reason (Wacko Guido, 2020). An example of this would be restraining a competent patient against their wishes.

Foreseeability
A concept that certain events may be expected to cause specific results (Wacko Guido, 2020). For example, not providing a patient their insulin foreseeably results in high glucose levels.

Negligence
Negligence is an omission or commission of an act that is a deviation from a standard of care, also equated with carelessness (Wacker Guido, 2020). Malpractice is professional misconduct or negligence, improper discharge of professional duties, or failure to meet the standard of care of a professional that results in emotional, physical, or monetary harm to another in their care (Wacker Guido, 2020).

Respondeat superior
Under respondeat superior, or "let the master answer," the employer is held responsible for the legal consequences of the acts of a nurse or other employee acting within the scope of employment. The basic idea behind this theory comes from the concept that the employer has the right to control the acts of the employee. In other words, the hospital is held responsible for the actions of the nurse, which in turn encourages employers to ensure competencies of their employees. Likewise, the nursing supervisor can be held responsible for staff nurses' actions. Typically, a plaintiff files suit against both the nurse and the institution. The institution is usually named as a defendant because it usually has adequate assets to cover a judgment (Wacker Guido, 2020).

Ordinary negligence
Nurses may be sued personally for matters not involving medical malpractice under ordinary negligence. Under this scenario, the allegedly negligent conduct is compared with the conduct of a reasonably prudent layperson, not a reasonably prudent nurse. Ordinary negligence is conduct that involves undue risk of harm to someone. For example, if an orderly observes water on the floor but fails to clean it, resulting in a patient fall, the orderly may be held responsible for damages suffered by the patient. Professional negligence is different from ordinary negligence because professionals are held to professional standards of care (Wacker Guido, 2020).

Malpractice or professional negligence
Nurses are held liable for malpractice or professional negligence in most settings. Nurses' increased responsibilities and the increased number of nurses carrying personal malpractice insurance makes them financially attractive to plaintiffs. However, a plaintiff's attorney usually does not inquire into the insurance status of a nurse before filing suit. Accordingly, carrying a personal policy does not increase the risk of involvement in a lawsuit. Malpractice law enforces the moral value to do no harm to the patient. The law represents the minimum standard of nursing practice. The standards of good nursing practice include assessment, planning, implementation, and evaluation. In nursing, negligence is the failure to meet accepted standards for nursing competence and nursing scope of practice (Wacker Guido, 2020).

Spoliation
Spoliation is a term used to describe any action, including destruction, alteration, or concealment of records, that deprives the court or patients of evidence. Failure to preserve, or inability to produce, evidence, including medical records, can lead to severe consequences. Although state laws differ, some laws require the court to order an adverse presumption against the party unable to produce the records – that is, the records would have been harmful to the party. Moreover, defending a case is difficult, if not impossible, without the pertinent medical records. If the jury learns of the absence of the records, they may assume that the records contained damaging information that led the healthcare provider to destroy the records (Jun, J. & Ihm, R., 2021).

Informed consent

Informed consent is the voluntary consent a healthcare agency or healthcare provider requires to provide care for the patient. This can be given by the patient themself or a legal representative (Wacko Guido, 2020). One needs to remember that informed consent is not just a piece of paper, but a process. The patient must understand what they are agreeing to. The information needs to be provided in a manner the patient understands. Many factors influence a patient's ability to give informed consent. Mental status, the ability to comprehend information provided that is necessary for informed consent, the ability to understand the terminology used when treatments or procedures are explained, understanding of the language being spoken, and fear and anxiety are just some of the factors that influence informed consent. The nurse has a legal and ethical obligation to facilitate the patient's ability to give consent as well as the same obligation to support a patient's decision to refuse to give such consent.

Sometimes patients sign a blanket consent to treatment form that allows the healthcare team to provide general care. A specific procedure will need another consent form. Examples of this would include invasive procedures (insertion of a central catheter) and surgery. To ensure the patient is actually providing informed consent, the patient should be asked to explain the procedure back to the healthcare provider. Even though a blanket consent form has been granted, the nurse should ask permission before conducting any nursing care such as bathing, turning, and insertion of an intravenous catheter.

Nurses are often asked to witness the written informed consent process. What the nurse is signing to is that the patient's signature was given freely and without coercion. The nurse is not attesting that the patient understands the care provided (Wacko Guido, 2020).

An informed consent must include the following:

1. Brief but complete explanation of the treatment or procedure.
2. Name and qualifications of the person performing the treatment or procedure and any assistants.
3. Explanation of potential risks/harms that may occur, including death if it is a potential outcome.
4. Explanation of alternatives to the therapy or procedure, which should also include the risks of doing nothing.
5. Explanation that the patient can refuse the procedure or therapy without having other therapies or alternatives discontinued.
6. Explanation that the informed consent can be removed, even if the procedure has started (Wacko Giodo, 2020).

Here are key points of the ANA Code of Ethics (American Nurses Association, 2015). The nurse's role in the informed consent process may include the following:

- **Providing patient education**: One of the most important roles of the nurse is that of patient educator. Nurses can facilitate the informed consent process by providing accurate, objective, and supportive patient education. Initiating patient education can trigger important patient questions and concerns, which if addressed appropriately, can facilitate the decision-making process and alleviate some anxiety.
- **Facilitating patient comprehension**: Patients may have difficulty understanding the plethora of information that accompanies diagnostic procedures and treatment options. Nurses can help with comprehension by asking patients to explain what they understand about proposed treatment and procedures. Common issues that require further explanation or information include the disease being treated, coping with anxiety, dealing with pain, and the impact of other treatment measures already in place on proposed treatments and procedures.
- **Reducing fear and anxiety**: Fear and anxiety can significantly interfere with patient comprehension and the informed consent process. The nurse should work to identify and address the source of anxiety and to relieve or reduce it.

The nurse should make sure that all information is provided and documented, including that the patient knows they have the right to withdraw consent at any time without repercussions. Some healthcare providers have a template for certain types of informed consent such as a written explanation of specific chemotherapeutic drugs, their names, doses, how the drugs will be administered, and on what schedule, as well as anticipated adverse effects. It is especially important that patients and families know what to do when adverse effects occur and how to recognize when an adverse effect is typical and when it could lead to a serious complication.

One of the biggest areas of concern in any type of informed consent or patient education process is assessment of the patient's understanding of the information presented. Did the patient acquire the appropriate knowledge to give an informed consent? How was this assessed? How was this documented?

For example: It is not sufficient to simply ask John and his wife, "Do you understand the side effects this chemotherapy can cause?" Questions that can be answered with a yes or no should be avoided. Some people will simply say "yes" because they are nervous and want to move along or because they do not want to admit that they do not understand.

A more appropriate way of assessing knowledge acquisition regarding side effects would be for the healthcare provider to say, "Please tell me the side effects of the drugs you will be receiving and what to do if you experience them." This requires the patient to explain what they know. The healthcare provider can then assess just how much knowledge the patient actually gained and what information needs to be presented again.

The nurse should ensure that the patient's explanation is then documented. For example: "Patient was able to state that the medication (insert the name of the actual medication) typically causes nausea and vomiting the second day after administration. He states that if he is unable to drink and retain fluids for more than 12 hours, he should telephone his physician. He described the signs and symptoms of dehydration: dizziness; hot, dry skin; parched lips; and confusion. He states that if these occur, he or his wife will seek immediate medical assistance."

It is impossible to anticipate all potential problems regarding informed consent. But if appropriate informed consent is obtained and documented, these problems should be reduced in number and desired patient outcomes facilitated.

Implied consent

Implied consent is consent which may be inferred (Wacko Guido, 2020). An example of this would be a nurse letting the patient know an intravenous catheter is needed and the patient extends an arm without comment. Related to this is emergency consent (Wacko Guido, 2020). In this situation the patient is unable to make their wishes known and a delay in care would result in an adverse situation or poor outcome (Wacko Guido, 2020).

Self-Assessment Quiz Question 5#

Which of the following would be a correct question to assess if the patient truly understood the informed consent they are asked to sign?

a. "You understand the risks of the procedure, correct?"
b. "Do you have any questions?"
c. "Please tell me the risks of the procedure in your own words."
d. "Let me know if you have any questions."

There are a number of laws at both the federal and state levels that affect patient care. This list is not meant to be complete, however it presents two of the federal laws that directly affect nurses.

HIPAA

The Health Insurance Portability and Accountability Act (HIPAA) was initially enacted as a means to prevent employers from denying employees health insurance coverage because of pre-existing conditions. In 2003, a privacy rule was published to mandate a consistent level of protection for all health information housed or transmitted electronically that pertains to an individual. This rule applies to "covered entities," including nurses, other employees in healthcare facilities or agencies, health insurance companies, and medical-billing or data-collection companies (Wacko Guido, 2020). Covered entities include nearly all healthcare providers regardless of whether they work in outpatient, inpatient, or residential settings, as well as other persons or organizations that bill or are paid for healthcare (Wacko Guido, 2020).

The HIPAA Privacy Rule is the first comprehensive federal protection initiative to protect the privacy of health (including mental health) information. The purpose of the rule is to provide significant legal protection to ensure the privacy of individual health information without interfering with access to treatment or quality of care (Wacko Guido, 2020).

Basic principles of the HIPAA Privacy Rule

Here is a summary of some of the basic principles of the HIPAA Privacy Rule (Wacko Guido, 2020):

- The privacy rule protects all protected health information (PHI) including any electronic PHI. Protected health information includes "individually identifiable health or mental health information held or transmitted by a covered entity in any format, including electronic, paper, or oral statements." Protected health information includes: name, address (all geographic subdivisions, smaller than state (so street zip code, city or country), all elements of dates, telephone numbers, fax numbers, email addresses, social security numbers, medical record number, health plan beneficiary number, certificate or license number, vehicle identifiers, device identifiers and serial numbers, Wed URL, Internet Protocol (IP) address, finger or voice print, and photographic images (not just face) and other characteristic that could uniquely identify the individual.
- A covered entity, such as a nurse, may not use or disclose PHI information to others except as the privacy rule allows or as authorized by the person or the person's representative who is the subject of the health information.
- A covered entity must provide individuals (or their personal representatives) access to their own PHI unless there are permitted grounds for refusal. The covered entity must provide an accounting of the disclosures of the PHI to others upon request.
- The privacy rule supersedes state law. However, state laws that provide greater privacy protections or give individuals greater access to their own PHI remain in effect.

Disclosures to other persons

Nurses and other healthcare professionals are often in the difficult position of having to refuse to give information to a patient's family, friends, or others involved in the patient's care in order to adhere to confidentiality and privacy mandates. However, under certain circumstances, the privacy rule does allow disclosures to family, friends, and others involved in the patient's care or payment for care (Wacko Guido, 2020).

- Disclosures to family and friends is allowed if the patient is present and has the capacity to make healthcare decisions. A provider may disclose pertinent information to family and friends if the provider does one of the following:
  - Obtains the patient's permission.
  - Gives the patient an opportunity to object and the patient does not object.
  - Decides from the circumstances (based on professional judgment) that the patient does not object.
- Disclosure may be made in person, over the telephone, or in writing if the patient is not present or is incapacitated if, based on professional judgment, the disclosure is in the patient's best interest. Examples of such professional judgment include allowing someone to pick up a filled prescription or other types of similar health information for the patient.
- Disclosures to other persons are allowed if the patient is present and has the capacity to make healthcare decisions if the provider does one of the following:
  - Obtains the patient's permission.
  - Gives the patient an opportunity to object and the patient does not object.
  - Decides from the circumstances (based on professional judgment) that the patient does not object.
- Disclosures to other persons may be made in person, over the telephone, or in writing if the patient is not present or is incapacitated. A provider may disclose relevant information if the provider is reasonably sure that the patient has involved the person in the patient's care and, using professional judgment, the provider believes the disclosure to be in the patient's best interests.

Case study #3

Mrs. Davidson is a 60-year-old investment banker who has been diagnosed with Stage II breast cancer. Her mother and grandmother are breast cancer survivors. Mrs. Davidson has a 35-year-old daughter from whom she is estranged. After undergoing genetic testing, Mrs. Davidson was found to have a genetic mutation that significantly increases the risk of breast cancer. Mrs. Davison has made it clear to her physician and the nursing staff that she will not be sharing the results of the genetic testing with her daughter, Victoria. One of Mrs. Davidson's nurses knows Victoria; they attend the same church.

Questions:

1. Victoria asks the nurse if any test results have come back on her mom. What should the nurse say and why?
2. If she tells Victoria, are there ethical and legal concerns? If so, what are they?
3. If Victoria did not ask the nurse, should the nurse still say anything? Why or why not?

Discussion

The nurse cannot tell Victoria if there were any tests and if there were any results. The nurse would be best saying "I am not allowed to say anything, including if there are test results as your mom's medical information is private." Mrs. Davidson expressed clearly that she did not want her daughter to know. Mrs. Davidson's results are protected under HIPAA; no one has access to the results without Mrs. Davidson's expressed permission. From an ethical point of view, autonomy is not limited to physical autonomy but the autonomy to decide who has access to information. Finally, if Victoria does not ask, the nurse has no obligation for letting her know the results for the reasons above. While some could say, given the nature of the results (genetic), the daughter has a right to know, even genetic results are considered private and require permission from the patient to be disclosed.

Safeguards to protect PHI

The privacy rule requires that reasonable safeguards be used to protect PHI. Such safeguards vary, depending on the organization, the providers involved, the individual patient's condition, and individual healthcare plans. The rule does not mean, however, that safeguards will absolutely guarantee the privacy of PHI. It is expected that all covered entities evaluate the possibility of violations of confidentiality and privacy and work to eliminate them. Nurses must be completely familiar with their organization's policies and procedures pertaining HIPAA and PHI (Wacko Guido, 2020).

Following are examples of reasonable safeguards (Wacko Guido, 2020):

- Mandating the use of secure passwords for computers that contain PHI.
- Speaking quietly when it is necessary to converse in public areas, such as hallways or nursing stations.
- Avoiding discussing patient information in public waiting rooms.

HOSPITAL READMISSIONS REDUCTION PROGRAM (HRRP)

This is a Medicare value-based purchasing program that encourages hospitals to provide improved communications and care coordination around discharges to decrease avoidable readmissions (CMS.gov, 2021). There are six conditions that are monitored for avoidable hospital readmissions within 30 days. The six conditions are: 1) Acute Myocardial Infarction (AMI), 2) Chronic Obstructive Pulmonary Disease (COPD), 3) Heart failure, 4) Pneumonia, 5) Coronary Artery Bypass Graft (CABG) surgery, and finally, 6) elective primary total hip arthroplasty and/or total knee arthroplasty (THA/TKA; CMS.gov, 2021). This program went into effect in 2010 as part of the Patient Protection and Affordable Care Act (Gia and Pachamanova, 2019). In 2019, Gia and Pachamanova reported examining the Medicare AMI readmissions rate and demonstrated a decrease in readmissions with no negative impact on vulnerable populations (Gia and Pachamanova, 2019).

Impact on nurses

Given nurses are on the front-line during patient education and discharge, it is important for nurses to understand the purpose of the HRRP and how nurses contribute to the overall hospital mission to decrease readmission rates. For example, Bahr, et al in 2020 reported a 7.8% decrease in adult readmissions when the patient had the same nurse for 2 consecutive days before discharge. This was independent of other factors historically related to readmissions (Bahr, et.al, 2020).

Self-Assessment Quiz Question 6#

Sue is an RN who works on a busy medical floor. Today is an exceptionally busy day and she needs to discharge a number of patients, some of whom have COPD or heart failure. She decides to skip going over the discharge instructions with her patients and just provide handouts. What could happen to where she works because of this decision?

a. The institution could be charged with a HIPAA violation.
b. The patient could be readmitted within 30 days and the facility could be in violation of HRRP.
c. The patient could feel their PHI is being exposed.
d. There are no issues with what Sue has done.

ISSUES WITH SOCIAL MEDIA, NURSING, AND LEGAL CONCERNS

Social media and nurses

Social media is instantaneous, powerful, and postings are not able to be completely deleted. It has transformed the way people communicate. For nurses, social media can be a useful tool that facilitates professional connections, promotes appropriate and timely communication with patients and family members, and educates and informs both healthcare professionals and healthcare consumers alike.

Using social media is not a problem for nurses or other healthcare professionals as long as they remain aware of the scope, standards, and laws that guide their practice. Patients expect nurses to act in their best interests at all times and to respect their dignity and the dignity of loved ones. Unintentional as well as deliberate breaches of patient confidentiality and privacy can cause harm, destroy the nurse–patient professional relationship, and can even have legal implications for nurses who (willingly or inadvertently) breach duty through the use of social media. Occurrences of inappropriate use of electronic media have been reported to state BONs; reported in the nursing and general public media; and, in some cases, have resulted in severe disciplinary action (National Council of State Boards of Nursing, 2018a).

The NCSBN has published a white paper titled *A Nurse's Guide to the Use of Social Media* (National Council of State Boards of Nursing, 2018a). Although most healthcare organizations have policies that address employee use of social media during work hours, many do not address the use of such media outside of the workplace. When using social media outside the workplace, the nurse is still vulnerable to accusations of professional misconduct such as violations of clients' rights and confidentiality. This white paper attempts to address some of these occurrences.

A nurse's use of social media is still guided by professional, legal, and ethical standards. Client information must be protected regardless of whether the nurse is on or off duty. Privacy refers to the client's expectation and right to be treated with dignity and respect. Federal law reinforces such privacy through HIPAA. Breaches of client confidentiality and privacy can be intentional or accidental and can occur in a multitude of ways. However, even unintentional breaches leave the nurse vulnerable to legal and other forms of disciplinary action. This includes posting information via social media (National Council of State Boards of Nursing, 2018a).

A BON may investigate reports of inappropriate disclosures on social media on the following grounds (National Council of State Boards of Nursing, 2018a):

- Unprofessional or unethical conduct.
- Moral turpitude (actions that are immoral, unethical, or unjust).
- Mismanagement of patient records.
- Revealing privileged communication.
- Breaching confidentiality.

Nursing consideration: Improper use of social media by nurses may violate state or federal laws, thus making the nurse vulnerable to personal liability claims (National Council of State Boards of Nursing, 2018).

Examples of misuse of social media

The following are some examples of misuse of social media that have been, unfortunately, well publicized in various media formats.

A Facebook Photograph. A junior nursing student provided nursing care to a 3-year-old leukemia patient as part of her pediatric clinical rotation. When the child's mother was out of the room, the nursing student took his picture with her cell phone and posted the photo on her Facebook page, commenting about the bravery of the child and how proud she was to be a nurse. The patient's room number was clearly visible in the photo. A nurse from the hospital was browsing Facebook and found the photo. The nurse reported it to hospital authorities. Although the student did not mean to do so, she had violated a client's confidentiality. She was expelled from the nursing program; the nursing program was barred from using the pediatric site for future clinical rotations for their students; and the hospital faced a HIPAA violation (National Council of State Boards of Nursing, 2018).

The nursing student meant no harm, but naively breached confidentiality according to the HIPAA Privacy Rule. Additionally, the nursing program in which the student was enrolled had a clearly stated policy about students not breaching confidentiality and HIPAA (National Council of State Boards of Nursing, 2018).

Another example is Jane, a nurse working at a long-term care facility, who arrived at work one day and found a photo of one of the residents' buttocks on her computer screen. Jane sent the photo to several colleagues who also forwarded the photo. One nurse posted the photo to her Facebook page, saying, "This is what we have to deal with on a daily basis!" By noon, all the nurses and unlicensed personnel were snickering and talking about the photo, and eventually their supervisor was alerted. Being concerned about protecting the residents' rights, the facility began an investigation and alerted the BON. Local media reported on the incident and law enforcement became involved to investigate whether sexual exploitation had been committed. By the end of the day, it made national news and the family threatened a lawsuit. The nurses involved were fired and had to appear before the BON. All of this could have been avoided if Jane, the first nurse, had promptly reported finding the photo to her supervisor and not shared it (NCSBN, 2018c).

A Blog Entry. A nurse blogged on a local newspaper's online chat room about taking care of a client. She referred to the client as her "little handicapper" and mentioned the child's age and using a wheelchair. The description made the client identifiable in the small town in which the nurse worked. A reader of the blog complained to the BON that the nurse had violated privacy laws.

The BON issued a warning to the nurse advising her that further evidence of release of personal information about clients would result in disciplinary action. The nurse could have faced severe disciplinary action and was considerably shaken. She learned a lesson about privacy violations as well as the use of unprofessional language (little handicapper' National Council of State Boards of Nursing, 2018).

Consequences of the misuse of social media

The ease and instant communicability of posting information on social media can lead to serious professional consequences. The NCSBN advises nurses to avoid posting information about patients electronically and on any type of social media. They should be aware of and adhere to all employers' policies regarding social media and promptly report any breach of client confidentiality or privacy.

The following are some possible consequences of misusing social media (National Council of State Boards of Nursing, 2018a):

> Nurses must report any violation of privacy or confidentiality that others make against patients. Failure to do so could result in employer or BON disciplinary action and the filing of civil or criminal penalties against the nurse who failed to report such violations.
>
> - Online posts about coworkers—such as intimidation, threats, or humiliation—could be viewed as lateral violence even if posted from home or other private locations during off-duty hours. Such posts are referred to as cyberbullying.
> - Employers must also be cautious in their use of social media. Posting comments about patients, family, or employees may also result in legal action.
> - Faculty members are another group who must be mindful of how they use social media. Students are more frequently reporting that faculty members are asking for students' social media passwords or to be friended to bypass privacy settings. Students were not comfortable doing this but were also not comfortable refusing the requests. Faculty must not only instruct student about the proper use of social media but also use social media in an appropriate manner themselves.

Nursing consideration: In addition to disciplinary action by employers and BONs, nurses who violate privacy via social media can face civil or criminal penalties that could include monetary fines or imprisonment (National Council of State Boards of Nursing, 2018a).

Myths surrounding social media

Finally, healthcare professionals as well as students can be naïve when it comes to the use of social media. Here are some common myths regarding the use of social media.

Myth*: Communication posted on social media is private and accessible only to the intended recipient.*

> **Reality**: Content, once posted or transmitted, can be sent to others and is usually not under the control of the original writer. Some social media sites even have a very broad waiver of rights to limit use of transmission or posting of content (National Council of State Boards of Nursing, 2018a).

Myth*: Content deleted or removed from a social media site is no longer accessible or recoverable by others.*

> **Reality**: As soon as something is posted, it exists forever and can always be discoverable by a court of law (National Council of State Boards of Nursing, 2018a).

Myth*: It is OK to post private information about patients as long as the communication is accessed only by the intended recipient.*

> **Reality**: Posting such information is still a confidentiality breach. It is also unacceptable and inappropriate for nurses to discuss or refer to patients, even if such patients are not identified by name but referred to by room number, diagnosis, condition, behavior, or even a nickname. This constitutes a breach of confidentiality (National Council of State Boards of Nursing, 2018a).

Self-Assessment Quiz Question #7

Tom, who is an RN, has had a really rough day and feels the need to vent. He states how short the staffing is on his unit, names his unit, uploads a picture of the staffing and states most of his patients were combative on his private Instagram account. Which of the following is one of the issues with his post?

a. Breach of confidentiality.
b. Breach of nurse/nurse patient information.
c. Breach of protected hospital information.
d. Breach of nurse-to-nurse confidentiality.

Impaired nurses

Substance use disorders are still stigmatized for nurses, which could cause them to be hesitant to reach out for help (Webster, 2022). Rates of reported substance abuse are the same as the general population at around 6% to 8%, however, about 18% of

nurses *show signs* of substance abuse at work and many nurses report using substances to cope with stressors (Webster, 2022). Risk factors include family history of substance abuse or past emotional or physical trauma. The vast number of nurses report work stress as the reason for choosing to use drugs or alcohol. The workplace stress includes chronic staff shortages with extra shifts, and excessive workload during shifts (Webster, 2022).

Nursing consideration: Signs of unhealthy substance use in nurses: Changes in work habits, conflicts with patients or patients' families, charting errors or omission, dramatic mood swings, and social/professional isolation. Impaired performance is a clear warning sign; however, symptoms of impairment might be subtle such as being dazed or sleepy (Webster, 2022).

In most states a nurse may enter a non-disciplinary alternative to discipline program (National Council of State Boards of Nursing, 2018b). The sooner the substance abuse is identified and treated, the better the chance the nurse will return to work and patients will be protected (National Council of State Boards of Nursing, 2018b).

Nursing consideration: Recreational marijuana: As more states legalize recreational use of marijuana, nurses may wonder if there are implications for their practice. The answer is in a grey area but can be yes. A nurse can be subjected to random drug testing at work or before obtaining employment. Marijuana can stay in the blood stream for up to 30 days, thus with recreational use, even if it has been a few days, drug screens can be positive. Current recommendation is not to use any products for recreational use that contain marijuana (Brown, 2018).

LAWSUITS

Categories of negligence that often lead to malpractice lawsuits

Nurses can be sued for some of the following reasons (O'Neil, 2022):

1. Medication errors.
2. Failure to follow orders.
3. Practicing outside of one's scope of practice.
4. Failure to recognize an order error.
5. Failure to communicate, report, or notify and provide pertinent information about a patient in a timely and proper manner.
6. Wrongful delegation of a nursing function.
7. Lack of, or poor documentation.

Nursing consideration: In a court of law, the patient is referred to as the plaintiff. The nurse named in the malpractice lawsuit is referred to as the defendant (Wacko Guido, 2020).

Standards of care

Failure to follow established standards of care can change as new treatment interventions are discovered and nursing roles and responsibilities evolve. Policies and procedures often change based on advances in treatment and the need to use new or unfamiliar equipment. Examples of failure to follow standards of care can be as simple as failure to adhere to medication administration procedures; failure to institute necessary protocols such as a fall protocol; or failure to use equipment in a responsible manner. In fact, failure to use equipment safely and accurately is identified as a separate category among the six major categories of negligence that can lead to malpractice lawsuits (Wacko Guido, 2020).

Communication

Failure to communicate is a consideration in most malpractice lawsuits (Wacko Guido, 2020). Because many conversations are not documented, it can be difficult to prove the adequacy of communication between nurses and other healthcare professionals.

Here are some suggestions for ensuring adequate communication (Wacko Guido, 2020):

- Clearly communicate all pertinent patient information to the physician and other healthcare professionals as appropriate.
- Provide all relevant discharge information to the patient.
- Document thoroughly.
- Clearly communicate all assessment findings to the nurse from the oncoming shift.
- Participate in continuing education activities that focus on communication.

Documentation

Failure to document can be summed up in the familiar sentence, "If it isn't documented, it wasn't done." Failure to document can also lead to a specific treatment intervention (e.g., medication administration, dressing change) done more than once. Failure to document can lead to an inadequate plan of care if, for example, new assessment findings are not documented and shared with the appropriate colleagues (Wacko Guido, 2020). A well-documented medical record can provide an accurate reflection of nursing care, improve communication among the interdisciplinary team, demonstrate competency, and may help guard against a lengthy litigation process (NSO, 2020).

Assessments and monitoring

Failure to assess and monitor indicates that the nurse did not assess and monitor the patient appropriately based on the patient's clinical presentation or the facility policy. When evaluating, monitoring, and assessing are reviewed in a court of law, nursing expert opinions are crucial. The nurse expert for the plaintiff would describe what a reasonably careful and prudent nurse would do under the same or similar circumstances (Wacko Guido, 2020).

Elements of malpractice

What evidence must be obtained to prove malpractice? Four elements must be shown before a nurse is said to be liable for malpractice (Wacko Guido, 2020):

1. Duty.
2. Breach of duty.
3. Harm or damages.
4. Causation.

Nursing consideration: Remember that once duty is established, the nurse cannot abandon the patient. For example, when a nurse accepts an assignment, the nurse cannot stop caring for the patient without insuring there is another nurse to care for the patient (Wacko, Guido, 2020)

In a malpractice action, the plaintiff (the patient) must prove that the nurse's actions, or failure to act, violated a standard of care, thereby breaching the duty to the patient. Attorneys for the plaintiff will present testimony concerning the nurse's failure to competently provide safe and appropriate nursing care (Wacko Guido, 2020).

What types of evidence will the plaintiff's attorneys use to show breach of duty? Evidence is gathered to show that there was a violation of the standard of care. Sources of such evidence include the following (Wacko Guido, 2020):

- The patient's medical record.
- Photographs.
- X-rays.
- Results of diagnostic (including imaging) studies.
- Testimony from witnesses such as other nurses, nurse managers, the patient, the patient's family members, and other visitors.

Another way the attorneys may seek to prove a breach of duty is to call on an expert witness to give testimony. A nurse expert witness must meet the following criteria to provide testimony (Wacko Guido, 2020):

- Be currently licensed to practice nursing.
- Have credentials that match or exceed the defendant's credentials.
- Be without bias.
- Not have any professional or personal relationship with any of the persons involved in the lawsuit.
- Be able to describe the relevant standard of care.
- Be able to describe how the nurse (defendant) failed to meet the standard of care and how that failure caused or contributed to patient injury.

Harm

For a nurse to be held liable for malpractice, the plaintiff (patient) must prove that actual harm resulted from the nurse's breach of duty (Wacko Guido, 2020). For example, suppose a nurse administered a dose of ampicillin to the wrong patient because they did not verify the patient's identity. The patient was not allergic to the medication and had no adverse effects from receiving this medication in error. Although the nurse failed to adhere to an accepted standard of care, no harm was done to the patient. Therefore, the "harm" element of malpractice has not been met.

***Now consider this example**: A patient is to ambulate for the first-time following surgery. The RN had not assessed this patient before ambulation. Instead, they delegated the responsibility for ambulating the patient to a nursing assistant. As the nursing assistant helped the patient to stand, the patient complained of feeling dizzy and fell to the floor, fracturing their hip. The nurse was found to have breached their duty to the patient because they failed to assess the patient before ambulation and delegated a task to a nursing assistant who was not qualified to assess the patient's postoperative condition. The patient was harmed; therefore, the first three elements of malpractice has been met.*

Causation

Causation is the fourth element of malpractice. The plaintiff must prove not only that the nurse breached their duty and the patient suffered harm, but also that the nurse's breach of duty specifically caused the patient's harm. In other words, there must be a causal link between the failure to meet the standard of care and the harm the patient suffered (Wacko Guido, 2020).

Nursing consideration: The plaintiff's attorney must prove that "but for" the nurse's negligence, the patient would not have suffered harm (Wacko Guido, 2020).

***For example:** Consider the patient who received the ampicillin by mistake in the earlier scenario. Suppose that Monica, an RN, administered the ampicillin around 9 a.m. At 6 p.m., the patient told a nursing assistant that he was having aching pain in his left calf. The nursing assistant reported the complaint to Sharon, the RN accountable for providing nursing care to the patient that evening. Sharon told the nursing assistant to keep an eye on the patient but did not assess them herself. The pain became worse, and ultimately the patient suffered a pulmonary embolism caused by phlebitis in the left calf. They later died in the intensive care unit. The patient's family sued both Monica and Sharon for malpractice. Upon review, it was determined that, although Monica did administer the ampicillin to the patient in error, this medication incident did not cause the harm suffered as a result of the pulmonary embolism. Sharon, however, was held liable for the patient's death because she failed to adhere to the standard of care and the NPA by inappropriately delegating assessment to a nursing assistant.*

Damages

Once malpractice has been proven, the plaintiff's damages are determined. Damages refers to the monetary value of the harm that occurred (Wacko Guido, 2020).

Nursing consideration: Damages usually include out-of-pocket medical and related expenses resulting from the occurrence of malpractice. Examples of expenses include lost wages, costs of medical treatment, and pain and suffering experienced by the patient as the result of the harm caused by malpractice (Wacko Guido, 2020).

For the patient/plaintiff to win a malpractice lawsuit, all elements of malpractice must be proven. The burden of responsibility for proving malpractice remains with the patient/plaintiff. The nurse/defendant does not have to prove that their actions were not negligent. The patient/plaintiff's attorney must prove that malpractice occurred and will attempt to convince the judge or jury that each element of malpractice has been proven (Wacko Guido, 2020).

Case study #5

Carol is one of several nurses named in a malpractice lawsuit. A patient had been receiving antibiotic therapy for an infection. The infection grew steadily worse, and the patient had to have his leg surgically amputated as a result of the infectious process. There is no documentation that Carol evaluated the effectiveness of the antibiotic therapy, as evidenced by documenting and monitoring the appearance of the wound when she and her colleagues changed the dressing.

Questions:

1. What element of the ANA scope of practice was violated here?
2. Has the plaintiff proven malpractice?

Discussion:

Assessment and documentation have been violated. Given there was no assessment data concerning the wound in the chart, it would be hard to say during dressing changes that anyone actually examined the wound. For malpractice the following must be met: duty, breach of duty, harm or damages, and causation. Yes, Carol had a duty to the patient to care for the wound. There was a breach of duty as there was no documentation of assessment that the infection was getting worse (and notification of the provider of this). There was harm to the patient as the patient needed an amputation because of the uncontrolled infection. There was causation in this case. Carol and the other nurses' lack of documentation did not give the provider an opportunity to change the antibiotics for the wound, thereby potentially preventing the amputation.

Nursing consideration: Failure to maintain minimum standards of nursing practice accounts for 58.9% of scope of practice license protection matters (NSO, 2020). An example of this is the following. "An RN working at a medical center failed to follow policies and procedures related to proper patient identification of two patients and to review relevant laboratory results. As a result of bypassing these standards, the nurse gave an extra unit of blood to one patient that was intended for the other patient. The State Board of Nursing (SBON) placed the nurse on probation for 3 years." Another example is "an RN working in the PACU was caring for a patient with extreme nausea. The nurse made several attempts to contact the treating provider but was unsuccessful. The nurse called the pharmacist, stating that she believed the patient's condition was urgent and she would contact the provider for an order. The medication was dispensed and the nurse gave it to the patient without ever obtaining an order. The SBON publicly reprimanded the nurse and ordered her to pay a fine for violating the Nursing Practice Act by practicing beyond the scope of practice for an RN" (NSO, 2020).

Protection from being sued

No strategy guarantees complete protection from being sued for malpractice. Unfortunately, patients or families may file lawsuits against nurses and other healthcare professionals for reasons that have nothing to do with the quality of care received (Wacko Guido, 2020).

Patients may be unhappy about a diagnosis or the outcome of a procedure. They may believe they were not treated with respect, or they may express anger over the death of a loved one even though standards of care were upheld. Unfortunately, some people are simply looking for an opportunity to obtain money regardless of the care received. Although none of these reasons is the result of a nurse's failure to adhere to appropriate standards of care, lawsuits can still be filed. Remember, however, that for the plaintiff to win a malpractice action, the four elements of malpractice must be proven (Wacko Guido, 2020).

Nursing consideration: A malpractice lawsuit has what is called an applicable statute of limitations. This means that a legal action must be filed against all defendants within a specific period of time from the time the allegedly negligent incident occurred (Wacko Guido, 2020). Sometimes, to avoid discovering that the statute of limitations has expired, and certain nurses and other healthcare professionals were not included as defendants in the lawsuit, the patient's/plaintiff's attorney may include as defendants "anyone and everyone" who may have been in any way involved in the client's care concerning the events leading to the alleged harm. After investigation, nurses and others not actually involved may be eliminated from the lawsuit (Wacko Guido, 2020).

Is there anything nurses can do to reduce the chances of being named in a malpractice action? Here are some suggestions (Wacko Guido, 2020):

- Practice only within the framework of their NPA and the scope and standards of their practice.
- Remain competent by attending in-services and continuing education activities.
- Become active in professional organizations.
- Identify their strengths and weaknesses. Work to enhance strengths and reduce weaknesses. Do not accept assignments if they feel they are not competent to perform them.
- Use all equipment safely and appropriately. If a nurse is unsure about the operation of a piece of equipment, they should seek assistance.
- Document all patient care activities and communications relating to patient care.
- Know how to use the chain of command to seek clarity or report situations that compromise patient care, and do not hesitate to do so.
- Interact in an objective, honest, and respectful manner with patients, families, and colleagues.

Nursing consideration: The most effective way for nurses to protect themselves from facing a malpractice lawsuit is to know and practice according to the NPA and standards for their levels of nursing practice and degree of specialization. This means that they must know the standards and NPA of the state or states within which they practice. They must also know the scope of practice standards as established by other recognized authorities such as relevant specialty organizations and the healthcare organization in which they practice (Wacko Guido, 2020).

The National Council of State Boards of Nursing does provide a checklist to enhance patient safety and minimize a nurse's liability for exposure (NCSBN, 2018c).

Below are some of the points on the checklist:

1. Read nurse practice act at least annually.
2. Decline to perform a requested service that is outside legal scope of practice and immediately notify supervisor or the director of nursing.
3. Contact the risk management or legal department regarding patient and practice issues, if necessary.
4. Contact the board of nursing and request an opinion or position statement on nursing practice issues.
5. Use the chain of command or the legal department regarding patient care or practice issues.
6. Evaluate every patient for risk of falling utilizing a fall assessment tool that considers the following factors, among others: Previous fall history and associated injury, gait and balance disturbances, foot and leg problems, reduced vision, medical conditions and disabilities, cognitive impairment, bowel and bladder dysfunction, special toileting requirements, use of both prescription and over-the-counter medications, and need for mechanical and/or human assistance.
7. Evaluate environmental factors needed to reduce risks - whether working in a hospital, rehabilitation, long term care facility, or in a home setting.
8. Accurately document all falls; some of the documentation should include patient functional status before and after fall, any witnesses to the fall, any contributory concerns (wet floor), and mental state, along with other things.
9. Complete a patient drug history, including current prescription medications; over-the-counter drugs and supplements; alternative therapies; and alcohol, tobacco and illicit drug use.
10. Review allergy notations on medication profiles before administering any medications.
11. Review laboratory values and diagnostic reports before administering medications and make practitioners aware of any abnormalities.
12. Utilize machine-readable barcoding to check patient identity and drug data before administration of drugs or, if this is not possible, verify patient identity using two patient identifiers (such as patient ID number and birthdate) from the original prescription.
13. Document simultaneously with medication administration to prevent critical gaps or oversights.
14. Accept verbal drug orders from practitioners only during emergencies or sterile procedures and, before transcribing the order, read it back to the prescriber and document the read-back for verification.
15. Follow procedures to prevent wrong dosages or concentrations of identified high-alert drugs (e.g., anti-coagulants, muscle relaxants, insulin, potassium chloride, opioids, adrenergic agents, dextrose solutions and chemotherapeutic agents).
16. Ensure that high-alert medications are always accompanied by standardized orders and/or computerized safe-dosing guidelines and are verified by two persons before administration.
17. Ensure that pediatric medications are accompanied by standardized orders and/or computerized dosing guidelines.
18. Follow employer's guidelines for both adult and pediatric patients' dosages, formulations, and concentrations of drugs.
19. Follow the employer's policies and procedures to keep drugs with look-alike and sound-alike names separate (NCSBN, 2018c).

Nursing consideration: Per report by the Nurses Service Organization (2020) the top defense matters in nursing litigation were 32.5% professional misconduct; 24.8% scope of practice, 9.7% documentation errors of omissions, 9.3% treatment and care; 8.8% patient's rights and patient abuse; 6.2% medication administration (NSO, 2020).

What to do if named in a malpractice suit

The first step the nurse should take is to inform their employer. Then the nurse needs to ask the following questions and be sure to receive clear answers (Wacko Guido, 2020):

- Am I covered by the organization's malpractice insurance policy?
- Up to how much in damages will the malpractice policy pay?
- Will the organization's attorney represent me in this lawsuit?
- May I hire my own attorney?

Even if the nurses are covered by the organization's malpractice insurance policy, it might be wise to consult with a personal attorney. It might be important to have legal counsel whose first and only priority is the nurse, not the employing healthcare organization.

Case study #6

Olivia is a critical care nurse. She is certified in that specialty and is familiar with the scope and standards of practice as they relate to critical care nursing. Olivia has worked in a large metropolitan medical center for 10 years as a critical care nurse. In this setting, Olivia has fulfilled her role as a critical care nurse to the maximum level within the standards legally and ethically allowed.

Recently, because of family needs, Olivia moved to a rural area served by a large community hospital. Hospital policies and procedures prohibit Olivia from performing some of the critical care procedures that she did in her previous work setting. Olivia is very upset about this and has complained, vehemently, to the nurse manager of the critical care unit. The manager sympathizes with Olivia but explains that change comes slowly to this facility. She suggests that Olivia form a task force to help provide evidence regarding the procedures now prohibited, showing that they are within the properly educated and trained critical care nurse's legal realm of practice. The manager promises to be part of the task force and to help develop and support any necessary training and education for Olivia's critical care colleagues. Olivia is frustrated: "It's not my job to show these outdated people how stupid they are being!"

One evening Olivia performs a procedure that, although within her scope of practice, is prohibited by hospital policy. The patient suffers a life-threatening complication.

Questions:

1. Can the family bring a lawsuit against Olivia and the hospital? Why or why not?
2. If the family can bring a lawsuit against Olivia and the hospital, do you think all elements of malpractice will be met?

Discussions:

Yes, the family can bring a lawsuit against Olivia and the hospital. While anyone can file a lawsuit, in this case there is potential malpractice. For malpractice, there needs to be a duty, breach of duty, harm, and causation. Olivia had a duty to care for the patient *following the hospital's policies and procedures.* While Olivia could perform the procedure in her original hospital, there were no policies in place for her to perform the procedure in the current hospital. Thus, by breaking the *scope of care at the hospital*, she breached her duty to the patient. Even if a NPA says an RN can do something, if the hospital has a policy that prohibits it, the nurse is obligated to follow the hospital policy. Hospital policy can restrict scope of care but cannot expand it larger than the state's nurse practice act. Yes, there was harm. The patient suffered a life-threatening complication and there was causation due to the fact the harm was caused by the procedure. So yes, all elements of malpractice have been met.

The nurse should not discuss the case with anyone except the attorney who is representing them (Wacko Guido, 2020). This includes other defendants and close friends. Discussing the case with even close friends may lead to problems later if these close friends indulge in gossip about the lawsuit or are called to testify against the nurse/defendant.

Suppose a nurse is not being represented by the healthcare organization but by an attorney they have hired. In that case, the nurse may be told not even to discuss the case with their employer (Wacko Guido, 2020).

Giving a deposition

A nurse named as a defendant in a malpractice lawsuit should expect to give a deposition. A deposition is "sworn pretrial testimony in response to written or oral questions and cross-examination, recorded by a certified court reporter." Depositions are taken from the plaintiff (patient or family), other defendants, and expert witnesses for both the plaintiff and the defendant. A written, audio, or video record is made of the testimony given during the deposition. Testimony is given under oath, meaning that the persons involved swear that the testimony they are giving is truthful. If the person lies, then perjury has been committed (Wacko Guido, 2020).

Nursing consideration: The information provided during a deposition can be used during the actual malpractice trial. Testimony given during a deposition that differs from testimony given during the trial may be a point of controversy during the trial. Such differences may have an adverse impact on any or all parties involved in the lawsuit. The credibility of the person whose testimony at the trial differs from the testimony given during the deposition could be damaged (Wacko Guido, 2020).

Here are other key points about giving a deposition (Wacko Guido, 2020):

- Depositions given by the defendant are meant to clarify what the patient's medical record contains (documentation by the defendant) and what the defendant intends to say as part of their testimony at trial.
- Depositions given by expert witnesses are meant to examine the scope of the experts' opinions.
- Before the deposition, the nurse's attorney will provide the nurse with advice and guidance as to how they should conduct themselves. The attorney will also review with the nurse the patient's medical record and questions likely to be asked by the patient's/plaintiff's attorney. The attorney will also explain which documents and discussions do not have to be answered - such as information about incident reports. Nurses and other defendants should follow the advice of legal counsel carefully. Deviating from such advice such as discussing the case with friends can have serious consequences.
- During a deposition, in addition to the patient's/plaintiff's attorney and the nurse's/defendant's attorney, other people may be present such as the patient, the patient's family members, and lawyers who represent other defendants in the case.
- During the deposition, the nurse will be asked about their background, education, nursing experience, and the care provided to the patient/plaintiff.

Malpractice coverage

Although the healthcare organization for which the nurse works may cover them under the organization's malpractice insurance policy, it is important that all nurses understand the kinds of events and financial limitations covered by the policy. Nurses should regularly check their employer's coverage of its nurses to be sure that coverage has not changed or been discontinued (Wacko Guido, 2020).

Nursing consideration: If the nurse and their employer are both named as defendants in a lawsuit, even if the nurse is covered by the employer's malpractice insurance, the interests of the nurse and the employer may be contradictory. It is possible that the employer could claim that the nurse failed to act within the scope of their employment and is consequently not covered by the employer's malpractice policy (Wacko Guido, 2020).

Here are some questions nurses need to ask regarding malpractice coverage (Wacko Guido, 2020):

- Am I covered by my employer's malpractice insurance? If so, what are the monetary limits of this coverage?
- What kinds of events and actions does the malpractice insurance policy cover?
- How many claims per year does the malpractice insurance policy cover?
- Does the malpractice insurance policy cover me if the incident that triggered the malpractice lawsuit occurred while I was an employee, but was not an employee by the time legal action was taken? In other words, does my protection stop if I am no longer employed by the organization, even though the incident occurred during my time as an employee?
- Does my employer's malpractice insurance cover the cost of an attorney to represent me?
- What are the laws in the state in which I practice concerning malpractice coverage? Are certain professionals mandated to have coverage? If so, how much coverage is mandated?

Employer's insurance relates to malpractice litigation. However, suppose a complaint is filed against a nurse by the state BON or other regulatory body. Legal representation is still necessary. An employer's policy will cover only malpractice representation. The nurse is on their own when dealing with the BON or other regulatory body complaints unless covered by personal malpractice insurance that includes such coverage (Wacko Guido, 2020).

Nursing consideration: If the nurse and their employer are both named as defendants in a lawsuit, even if the nurse is covered by the employer's malpractice insurance, the interests of the nurse and the employer may be contradictory. It is possible that the employer could claim that the nurse failed to act within the scope of their employment and is consequently not covered by the employer's malpractice policy (Wacko Guido, 2020).

Understanding malpractice insurance

A number of myths surround nursing malpractice insurance. Below are some reasons why a nurse should carry their own individual liability insurance (Wacko Guido, 2020):

1. Defending against a lawsuit is expensive and the healthcare agency's insurance may not cover all the nurse's legal expenses.
2. Nurses with private professional liability insurance are not sued more frequently. A plaintiff does not know if the individual has individual liability insurance until after the lawsuit is filed.
3. Costs may be relatively inexpensive, depending on where the nurse works.
4. Malpractice is not synonymous with incompetence or guilt. Sometimes, untoward events do occur placing the patient at risk, which can place the nurse at risk of being named in a lawsuit.
5. Should the institution decide to sue the nurse for reimbursement, the nurse has coverage for this.
6. A nurse can be sued, even if standard of care was followed. The patient's or family's perception that an error has occurred may be sufficient to trigger a lawsuit.

Types of malpractice insurance and their coverage

Occurrence-based policies cover nurses for events that occurred while the policy was in effect (e.g., the policy period). This is true even if the policy has expired but the claim was from an incident within the time period where the policy was enforced. *Claims-made policies* only provide for claims made within the active policy period and when the lawsuit has been filed with the courts, and when the insurance company is made aware of the lawsuit. If the lawsuit is filed after the policy has expired, the nurse is not covered (Wacko Guido, 2020). Policies usually cover defense costs; covered injuries, which can include bodily injury, mental anguish, property damage, libel, slander; and economic damages (Wacko Guido, 2020).

Policies will include limits of liability (individual claim, and overall [aggregate]). Some policies will not cover criminal actions, incidents under the influence of drugs or alcohol, "physical assault, sexual abuse, molestation, habitual neglect, licentious and immoral behavior toward patients whether intentional, negligent, inadvertent, or committed with the belief that the other party was consenting," and finally actions that violate state nursing practice acts (Wacko Guido, p. 188, 2020).

JUST CULTURE

A just culture is one that supports a safe haven for the reporting of errors and near misses in healthcare (Paradiso & Sweeney, 2019). It is the organization that is ultimately accountable for systems they design and the analysis of the incident, not the individual. The organization realizes errors are a sequence of events with multiple opportunities for correction, as opposed to occurring in a vacuum (Paradiso & Sweeney, 2019). There is not one definition of just culture; however, a generally accepted one is "organizational accountability for the systems they've designed and employee accountability for the choices they make" (Paradiso & Sweeney, 2019).

The first pillar of a just culture is the adoption of a nonpunitive, non-blaming system for the reporting of errors. The goal of the organization is to improve patient outcomes but not blame the individual (Paradiso & Sweeney, 2019). The second pillar is understanding the behavior leading up to a person's choice. Behaviors that could lead to errors would be "at-risk" behaviors, where the risk is not recognized or is believed to be justified. There can also be reckless behavior, which is a conscious decision to disregard the risk that is substantial and unjustifiable (Paradiso & Sweeney, 2019).

Once an error or near miss has been reported, the organization should conduct a root cause analysis (RCA) or failure missed and effects analysis (FMEA) to truly understand how the error occurred and what change is needed to prevent this in the future (Schroeder, Parisis & Foster, 2019). Systems are not infallible. Even with all the checks and balances in US healthcare systems (electronic medical records, orders etc.), mistakes still occur (Paradiso & Sweeney, 2019).

So, does a "Just Culture" mean there is never repercussions for an individual in a healthcare system? No, as stated above, there is a pillar consisting of understanding the behavior underlying the error. There are "at-risk" behaviors, which are a known violation of a rule or procedure, done in good faith that the violation is inconsequential; or reckless behavior, which is the commission of an error out of intentional disregard for the rule or procedure, its consequence, or both (Wasserman, Redinger and Gibb, 2020).

The question is "what should be the repercussion?" Samuel Reis-Dennis (2018) provided an ethical basis for some sort of repercussion for errors based on the ethical idea of a moral imbalance. When someone decides to knowingly break the rules, they are taking advantage of a non-blame culture. This brings about a disadvantage for others. Also, the person who "breaks the rules" is demonstrating a contempt for themselves and for those who follow the rules (Reis-Dennis, 2018). The message communicated is "the rules only apply to others, but not to the person who has broken them" (Reis-Dennis, 2018). He does not advocate punishment for system breakdown, but when members of the healthcare team knowingly break the rules. If there are also system issues, those need to be investigated and handled (Reis-Dennis, 2018).

What should the consequences be for "breaking the rules?" Wasserman, Redinger and Gibb (2020) provide some ideas. The recommendations are for medical students who "break the rules," however they can be applied to all persons working in healthcare. They advocate for two different sets of responses based on the type of "error". If it was a medical error, there is one set of responses and if there is a lapse in professionalism, there is another set (Wasserman, Redinger and Gibb, 2020). Below is a table adapted from their article, expanded to all healthcare providers, not just medical students.

Table 1

Type of Error or Lapse	Response	Example
Medical/Nursing Error		
Inadvertent human error: an error, usually resulting from shortcomings of human cognition, that was unintended.	Console.	Not hearing a patient call button, forgetting to turn a patient.
At-risk behavior: a knowing violation of a rule or procedure but with a good-faith belief that the violation is inconsequential.	Coach.	Error caused by failing to scan a patient's bedside barcode before delivering medication because the system often doesn't work correctly or ignoring a medication dosage alert in the electronic medical record because such alerts pop up constantly.
Reckless behavior: commission of an error out of intentional disregard for the rule or procedure, its consequences, or both.	Discipline.	Failure in completing a procedure or not following policies that directly endanger a patient (e.g., not monitoring a patient after giving a medication that is known to potentially cause harm).
Lapse inProfessionalism		
No-fault suboptimality: a lapse caused largely by environmental factors, but that could have been handled better by the employee.	Affirm, support, advise.	Missing a dressing change because central supply did not deliver the necessary supplies. Being late to work because of a storm where power outages were predicted and alarm clock did not go off.
Nonegregious unprofessionalism: knowing engagement in an unprofessional behavior but with a reasonable and good-faith belief that the violation is minor or inconsequential.	Remediate.	Skipping a mandatory inservice because it is felt the content is redundant.
Egregious unprofessionalism: knowing violation of a professionalism expectation without a reasonable claim or good-faith belief that the violation is minor or inconsequential.	Discipline.	Logging into a family member or friend's electronic medication record after training in HIPAA and other policies.
Modified from: Responding to Unprofessional Behavior by Trainees- A "Just Culture" Framework. Wasserman, Redinger, & Gibb, 2020.		

What is the difference between a "Just Culture" and law enforcement?

Both cultures aim to prevent harm to persons/patients and public interest. According to Eng and Schweikart (2020) "Just culture emphasizes the quality or desirability of an individual's choices and behaviors and apportions corrective actions or discipline on that basis more so than on the severity of the consequences. Criminal law, on the other hand, often focuses on outcomes, and while the law "generally disallow[s] criminal punishment for careless conduct, absent proof of gross negligence" (i.e., a heightened level of negligence that may include recklessness; p781)." This means in a just culture all aspects of the incident are reviewed, however, when examining the same situation through the lens of the criminal system, only the outcome is important." Instead of imposing punishments for all categories of failures of duty, a just culture advocates acceptance and support for errors, coaching to change risky behaviors, and discipline or punishment for those whose actions are reckless because they were committed with knowledge of harm or with purposeful intent to harm" (Eng and Schweikart, 2020 p781). Whereas in law enforcement, there may not be "coaching" but punishment, no matter if the behavior was risky (such as driving 5 miles over the speed limit) or with wanton recklessness (driving 50 miles over the speed limit and swerving wildly; Eng and Schweikart, 2020).

Even with Just Culture, does the error still effect the healthcare provider?

The most obvious victim of a medical error is the patient (and family), however, there is a second victim - the healthcare worker who was involved with the error (White and Delacroix, 2020). The healthcare worker can suffer significant emotional harm and burnout, whether their contribution to the error was preventable or not, and depending on the severity of the error (Sexton, Adair,

Profit, Milne, McCulloh, Scott and Frankel, 2021). White and Delacroix, in their integrative review of the research, describe a six-stage recovery process which most second victims go through.

The six stages are:

1. Chaos and accident response, where the medical error is first detected and usually involves an acute stress response.
2. Intrusive reflections, where those who err experience a period of self-isolation and rumination regarding the event.
3. Restoring personal integrity, in which healthcare providers are haunted by intrusive thoughts regarding the error and its impact on their personal and professional self.
4. Enduring the inquisition, where second victims worry about legal and professional repercussions.
5. Obtaining emotional first aid for those who err to seek emotional support from trusted family members, friends, and/or colleagues.
6. Moving on by either dropping out, surviving, and/or thriving (White and Delacroix, 2022 p7). A healthy recovery after a medical error is highly grounded in the individual's coping skills and self-forgiveness (White and Delacroix, 2022).

What also assists with second victim recovery is support from the employing institution. According to the findings in the White and Delacroix article, the second victim needs 1) fair treatment; 2) respect; 3) institutional understanding of their need for assistance in coping with the experience; 4) institutional support; and 5) transparency as the institution fosters a culture of openness to aid in the healing process (White and Delacroix, 2020, p8).

This finding was also supported in a research study published after White and Delacroix's publication. Sexton, et al in 2021 published their findings examining the perception of institutional support for second victims (Sexton, Adair, Profit, Milne, McCulloh, Scott, and Frankel, 2021). They examined cross sectional data from 13,040 healthcare workers across 440 work settings within one academic health system (Sexton, Adair, Profit, Milne, McCulloh, Scott and Frankel, 2021). Forty-three percent of the registered nurses surveyed (the largest group within the respondents with an n=3,367) were aware of a second victim (Sexton, Adair, Profit, Milne, McCulloh, Scott, and Frankel, 2021). But of those nurses, only 31% felt the institution actually provided support for second victims. (Sexton, Adair, Profit, Milne, McCulloh, Scott and Frankel, 2021). The study also demonstrated that those who felt there was poor support for second victims also scored more negatively on the assessment of the safety culture of the institution, than those who did not know a second victim. Thus, the authors concluded this dichotomy could have significant repercussions on the overall culture of the institution. Leaders can take away from this the need to assess the gaps in perceived second victim support and to improve the institutional structure of support, which may help with overall increase in the support of a safety culture (Sexton, Adair, Profit, Milne, McCulloh, Scott, and Frankel, 2021).

Should the error be disclosed to the patient or family?

Traditionally, patients and families were not made aware of the error unless it was obvious. Healthcare systems traditionally had a deny and defend strategy in hope of providing limited information to the family and denying fault. However, this has changed (Agency for Healthcare Research and Quality [AHRQ], 2019). This is in direct contrast to patient-centered care. Now a number of institutions have adopted the philosophy of "communication and response." This philosophy emphasizes early disclosure of adverse events, appropriate investigations (and letting the patient and family know the institution is investigating the event), changes to mitigate the chances of the event happening again, and, if care was inappropriate, financial compensation. Research has demonstrated this approach has led to a decrease in malpractice lawsuit and lower litigation costs. How the adverse event is disclosed to the patient and/or family needs to be handled thoughtfully and with sensitivity to avoid alienating the patient and/or family. State legislatures have supported this change in the culture of healthcare with more than 33 states having laws that preclude some or all information contained in the disclosure from being used in a malpractice lawsuit (AHRQ, 2019).

Self-Assessment Quiz Question #8

Taylor makes a medication error. He forgets to scan the patient's identification before administering the medication. There was no harm to the patient. He submits a report in the hospital's reporting system. In a just culture, should there be any consequences, and if so, what should they be?

a. No consequences, since he reported the failure to scan.
b. No consequences, since there was no harm to the patient.
c. Yes, this is an at-risk behavior and coaching would be appropriate.
d. Yes, this is a reckless behavior, and he should be written up.

Conclusion

Nurses have faced legal and ethical dilemmas for many years. It is the obligation of each nurse to practice within the scope and standards of practice as established by NPAs and within ethical codes of conduct. Understanding what could place a nurse in legal jeopardy is important. Also understanding what a "just culture" is and is not, will help the nurse in their care. Finally, the best interest of the patient is every nurse's primary goal and responsibility.

References

- Agency for Health Care Research and Quality (AHRQ). (2019). PSNet- Patient Safety Network Disclosure of Errors. https://psnet.ahrq.gov/primer/disclosure-errors
- American Association of Critical Care Nurses (AACN). (2019). *AACN Scope and standards for progressive and critic care nursing practice*. Aliso Viejo, CA. American Association of Critical Care Nursing.
- American Nurses Association (ANA). (2015). *Code of ethics for nurses with interpretive statements*. Silver Spring, MD: American Nurses Association.
- American Nurses Association. (2021b). Recognition of a nursing specialty, approval of a specialty nursing scope of practice, acknowledgement of specialty nursing standards of practice and affirmation of focused practice competencies. https://www.nursingworld.org/~49d755/globalassets/practiceandpolicy/scope-of-practice/3sc-booklet-2021-june.pdf
- American Nurses Association. (2021a). *Scope and standards of practice*. Silver Spring, MD: American Nurses Association.
- Bahr, S, J., Bang, J., Yakusheva, O., Bobay, K. L., Krejci, J., Costa, L., Hughes, Ronda, R. G., Hamilton, M., Siclovan, D. M., & Weiss, M.E. (2020). Nurse Continuity at Discharge and Return to Hospital, *Nursing Research*: 69(3) p 186-196 doi: 10.1097/NNR.0000000000000417
- Brown, L. (2018). Nurses and Marijuana. Your Nurse Attorney https://yournurseattorney.com/nurses-and-marijuana/
- California Legislative Information. (n.d.) BUSINESS AND PROFESSIONS CODE – BPC DIVISION 2. HEALING ARTS [500 – 4999.129] (Division 2 enacted by Stats. 1937, Ch. 399). CHAPTER 6. Nursing [2700 – 2838.4] (Chapter 6 repealed and added by Stats. 1939, Ch. 807.) ARTICLE 2. Scope of Regulation [2725 – 2742] (Article 2 added by Stats. 1939, Ch. 807.) https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=BPC&division=2.&title=&part=&chapter=6.&article=2.
- Eng, D. M. & Schweikart, S. J. (2020). Why accountability sharing in health care organization cultures means patients are probably safer. *American Medical Associations Journal of Ethics*. 22(9) E779-783. www.doi: 10.1001/amajethics.2020.779.
- Gai,Y. & Pachamanova, D. (2019). Impact of the Medicare hospital readmissions reduction program on vulnerable populations. *BMC Health Services Research19*(837) https://doi.org/10.1186/s12913-019-4645-5
- International Council of Nurses. (2022). Definition of Nursing https://www.icn.ch/nursing-policy/nursing-definitions
- Jun, J., & Ihm, R. (2021). The federal rule of civil procedure 37(e) and achieving uniformity of case law on sanctions for esi spoliation: Focusing on the "intent to deprive" culpability under rule 37(e)(2). Catholic University Law Review, 70(2),177-200. https://heinonline.org/HOL/Page?handle=hein.journals/cathu70&div=13&g_sent=1&casa_token=4x6Nm-STWdAAAAAA:3gILBuJh8y2lFifleddL86MdLFUPhwR2cko0dU9bqaG9xGh13IHO3KTR5YTDe3rD9ML7efBI&collection=journals
- National Council of State Boards of Nursing (NCSBN). (n.d.a). Requirements for eNLC https://www.ncsbn.org/NLC_ULRs.pdf
- National Council of State Boards of Nursing (NCSBN). (n.d.b.) eNLC Fats facts https://www.ncsbn.org/NLC_Fast_Facts.pdf
- National Council of State Boards of Nursing. (2018a). A nurse's guide to the use of social media; https://www.ncsbn.org/NCSBN_SocialMedia.pdf
- National Council of State Boards of Nursing. (2018b). A nurse's guide to substance use disorder in nursing. https://www.ncsbn.org/SUD_Brochure_2014.pdf
- National Council of State Boards of Nursing. (2018c). NCSBN Welcomes you to the Nursing Profession. https://www.ncsbn.org/New_Nurse-Booklet-Web.pdf
- National Council of State Boards of Nursing. (NCSBN). (2021). The Interstate Commission of Nurse Licensure Compact Administrators: Final rules. https://www.ncsbn.org/FinalRulesadopted81120clean_ed.pdf
- National Council of State Boards of Nursing. (2022a). Initial Review of complaint https://www.ncsbn.org/1616.htm#:~:text=The%20BON%20is%20called%20into,fraud%2C%20positive%20criminal%20background%20checks
- National Council of State Boards of Nursing. (2022b). Board Action https://www.ncsbn.org/673.htm#:~:text=Boards%20of%20Nursing%20(BON)%20take,objective%20is%20not%20time%2Dlimited
- National Council of State Boards of Nursing and American Nurses Association. (2019). National Guidelines for Nursing delegation. https://www.ncsbn.org/NGND-PosPaper_06.pdf

- New York State Education Law (2010) Article 139, Nursing retrieved from https://www.op.nysed.gov/prof/nurse/article139.htm.
- New York State Office of the Professions: (n.d.). Abandonment of Patients who need care. http://www.op.nysed.gov/prof/nurse/nurse-patientabandonment.htm
- Nursing Service Organization (NSO). (2020). Nurse Professional Liability Exposure Claim Report 4th Ed: Minimizing Risk, Achieving Excellence. Nursing Service Organization. www.CNA_CLS_NURSE20_061120p2_CF_PROD_ONLINE_SEC.pdf
- O'Neill, S. P. (2021). Individual nurse liability insurance, Understand your options. *American Nurse Journal*16(5) p 53- 58 www.myamericannurse.com/wp-content/uploads/2021/05/an5-Insurance-414a.pdf.
- Oyeleye, O. A. (2019). "The Nursing Licensure Compact and Its Disciplinary Provisions: What Nurses Should Know" *OJIN: The Online Journal of Issues in Nursing* 24(2 https://doi.org/10.3912/OJIN.Vol24No02PPT09
- Paradiso, L. & Sweeney, N. (2019) Just culture, *Nursing Management*. 50(6) p 38-45 www.doi: 10.1097/01.NUMA.0000558482.07815.ae
- Reis-Dennis, S. (2018). What 'Just Culture' doesn't understand about just punishment *Journal of Medical Ethics* 44:739-742. doi:10.1136/medethics-2018-104911
- Schroeder, P., Parisi, L. L., & Foster, R. (2019). Health care quality improvement then and now. *Nursing management*. 50(9)p20-25 www.DOI-10.1097/01.NUMA.0000579004.87116.35
- Sexton, J. B., Adair, K. C., Profit, J., Milne, J., McCulloh, M., Scott, S., & Frankel, A. (2021). Perceptions of Institutional Support for "second victims" are associated with safety culture and workforce well-being. The *Joint Commission Journal on Quality and Patient Safety*. 47:306-312. https://doi.org/10.1016/j.cjp.2020.12.001
- Texas Board of Nursing. (2022). *Practice: Texas Board of Nursing position statements.* Retrieved from *https://www.bon.texas.gov/practice_bon_position_statements.asp*
- United States Department of Health and Human Services. (2021). Hospital Readmissions Reduction Program (HRRP) https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program CMS.gov
- United States Department of Health and Human Services; National Practitioner Data Bank. (2022). Data Analysis Tool: RN Adverse Action Report. https://www.npdb.hrsa.gov/analysistool/
- Wacker Guido, G. (2020). Legal and ethical issues in nursing (7th ed.). Pearson Education.
- Wasserman, J. A., Redinger, M., & Gibb, T. (2020). Responding to Unprofessional Behavior by Trainees — A "Just Culture" Framework. *New England Journal of Medicine*. 382(8). https://doi:10.1056/nejmms1912591.
- Varkey, B. (2021). Principles of Clinical Ethics and Their Application to Practice. *Medical principles and practice: international journal of the Kuwait University, Health Science Centre*, *30*(1), 17–28. https://doi.org/10.1159/000509119
- Webster, A. (2022). Drug and Alcohol Rehab for nurses near you. American Addictions centers organization. https://americanaddictioncenters.org/healthcare-professionals/rehab-for-nurses
- White, R. M. & Delacroix, R. (2020). Second victim phenomenon: Is "just culture" a reality? An integrative review. *Applied Nursing Research* 56(151319). https://doi.org/10.1016/j.apnr.2020.151319

ETHICAL AND LEGAL ISSUES IN NURSING PRACTICE

Self-Assessment Answers and Rationales

1. The correct answer is A.
Rationale: A veracity is telling the truth. By accurately telling the patient the side effects of the medication, the nurse is being truthful to the patient.

2. The correct answer is C.
Rationale: Changing a bandage is within what can be delegated to an LPN. The rest of the items can be performed only by RNs.

3. The correct answer is D.
Rationale: It is each state or territory's board of nursing which develops and enforces nursing practice acts.

4. The correct answer is D.
Rationale: You are overstating your credentials.

5. The correct answer is C.
Rationale: This forces the patient to tell you what they understood, and any misconceptions can be discussed. The rest of the answers can be answered yes/no or not answered at all by the patient.

6. The correct answer is C.
Rationale: Given the Hospital Readmissions Reduction Program, if one of the patients is readmitted within 30 days of discharge, the hospital may lose the reimbursement for the admission.

7. The correct answer is A.
Rationale: Even though Tom has not posted names, he has posted private patient information by using patient descriptions (most of his patients were combative) and location (unit and hospital).

8. The correct answer is C.
Rationale: While there was no harm to the patient and Taylor reported the incident, he did place the patient at risk. After an investigation to see why Taylor did not scan (no scan wand in the room, the scan wand was broken, etc.) and any systems issues fixed, Taylor should be coached on how to prevent this from happening again.

Management of Anxiety and Depression for Healthcare Professionals

3 Contact Hours

Release Date: July 28, 2021

Expiration Date: July 28, 2024

Faculty

Karen S. Ward, PhD, MSN, RN, COI, received BSN and MSN degrees in psychiatric-mental health nursing from Vanderbilt University and a PhD in developmental psychology from Cornell University. She is a professor at the Middle Tennessee State University School of Nursing, where she has taught in both the undergraduate and graduate programs. Dr. Ward's work has been published in journals such as Nurse Educator, Journal of Nursing Scholarship, Journal of Emotional Abuse, and Critical Care Nursing Clinics of North America. She has also presented her work at local, regional, and international conferences. Dr. Ward's research interests include child and adolescent maltreatment, mental health, and wellness issues (stress and depression), leadership variables, and survivorship.

Karen S. Ward has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Debra Rose Wilson, PhD, MSN, RN, IBCLC, AHN-BC, CHT, received an MSN in holistic nursing from Tennessee State University School of Nursing and a PhD in health psychology with a focus in psychoneuroimmunology from Walden University. She has expertise in public health, psychiatric nursing, wellness, and disease prevention. In addition to being a researcher, Dr. Wilson has been editor of the International Journal of Childbirth Education since 2011 and has more than 150 publications with expertise in holistic nursing, psychoneuroimmunology, and grief counseling. Dr. Wilson has a private practice as a holistic nurse and is an internationally known speaker on stress and self-care. Dr. Wilson was named the 2017-2018 American Holistic Nurse of the Year. She is on the faculty at both Austin Peay State University School of Nursing and at Walden University.

Debra Rose Wilson has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Reviewer: Cindy Parsons, DNP, ARNP, BC, is a Psychiatric Mental Health Nurse Practitioner and educator. She earned her Doctor of Nursing Practice at Rush University, Illinois and her Nurse Practitioner preparation from Pace University, New York. Dr. Parson's is an Associate Professor of Nursing at the University of Tampa and maintains a part-time private practice. She is board certified as Family Psychiatric Nurse Practitioner and a Child and Adolescent Psychiatric Clinical Specialist and her areas of specialization are full spectrum psychiatric mental healthcare with a focus on family systems, community health and quality improvement. Dr. Parson's currently serves as the chair of the QUIN council, is the membership chair for the Florida Nurse Practitioner Network, and in 2009, she was inducted as a Fellow of the American Association of Nurse Practitioners.

Cindy Parsons has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Course overview

Mood disorders are common and often mistreated. The purpose of this course is to help healthcare workers in their treatment of patients with mood disorders such as anxiety, depression, and bipolar disorder, and to provide patients with access to treatment options. The treatment of mood disorders includes therapy and medication. This course helps to prepare healthcare professionals to differentiate the various mood disorders patients are exhibiting and their causes, identify risk factors for these disorders, recommend treatment options, provide a calm and supportive environment for patients, explore holistic considerations, and use evidence-based complementary therapies to assist patients.

Learning objectives

Upon completion of this course, the learner will be able to:

- Examine the possible causes and precipitating events of anxiety in patients.
- Evaluate the different levels of anxiety in patients.
- Apply evidence-based healthcare interventions for patients with anxiety.
- Differentiate the theories of causation and risk factors associated with depressive and bipolar disorders.
- Implement healthcare interventions commonly used with patients experiencing depressive and bipolar disorders.

How to receive credit

- Read the entire course online or in print which requires a 3-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal information and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion.

CE Broker reporting

Colibri Healthcare, LLC, provider # 50-4007, reports course completion results within 1 business day to CE Broker. If you are licensed in Arkansas, District of Columbia, Florida, Georgia, Kentucky, Michigan, Mississippi, New Mexico, North Dakota, South Carolina, or West Virginia, your successful completion results will be automatically reported for you.

Accreditations and approvals

Colibri Healthcare, LLC is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

Individual state nursing approvals

Colibri Healthcare, LLC is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation. In addition to states that accept courses offered by ANCC accredited Providers, Colibri Healthcare, LLC is an approved Provider of continuing education in nursing by: Alabama Board of Nursing, Provider #ABNP1418 (valid through February 5, 2025); Arkansas State Board of Nursing, Provider #50-4007; California Board of Registered Nursing, Provider #CEP17480 (valid through January 31, 2024); California Board of Vocational Nursing and Psychiatric Technicians (LVN Provider # V15058, PT Provider #V15020; valid through December 31, 2023); District of Columbia Board of Nursing, Provider #50-4007; Florida Board of Nursing, Provider #50-4007; Georgia Board of Nursing, Provider #50-4007; Kentucky Board of Nursing, Provider #7-0076 (valid through December 31, 2023; CE Broker provider #50-4007). Michigan Board of Nursing, Provider #50-4007; Mississippi Board of Nursing, Provider #50-4007; New Mexico Board of Nursing, Provider #50-4007; North Dakota Board of Nursing, Provider #50-4007; South Carolina Board of Nursing, Provider #50-4007; and West Virginia Board of Registered Nurses, Provider #50-4007. This CE program satisfies the Massachusetts States Board's regulatory requirements as defined in 244 CMR5.00: Continuing Education.

Activity director

Lisa Simani, APRN, MS, ACNP

Disclosures

Resolution of conflict of interest
In accordance with the ANCC Standards for Commercial Support for continuing education, Colibri Healthcare, LLC implemented mechanisms prior to the planning and implementation of the continuing education activity, to identify and resolve conflicts of interest for all individuals in a position to control content of the course activity.

Sponsorship/commercial support and non-endorsement
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Disclaimer

The information provided in this activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient's medical condition.

Course verification

All individuals involved have disclosed that they have no significant financial or other conflicts of interest pertaining to this course. Likewise, and in compliance with California Assembly Bill No. 241, every reasonable effort has been made to ensure that the content in this course is balanced and unbiased.

INTRODUCTION

It is common for patients to experience some anxiety about their health status. The need for hospitalization creates stress for everyone. Each patient experiences anxiety and responds to it uniquely. When patients have difficulty coping with their level of anxiety, certain strategies can help them reduce it by maximizing their coping abilities and using other stress reduction techniques (Halter, 2018; Townsend & Morgan, 2017). Both psychological and physical stress can precipitate feelings of anxiety. These feelings may be coped with in a variety of ways, or they may be overwhelming. When they are overwhelming, the person's coping mechanisms may be insufficient to manage the anxiety.

Depressive and bipolar disorders are general categories for illnesses that influence behavior, mood, and thoughts and are classified as mood disorders. They affect the way people eat and sleep, the way people feel about themselves, and how they think. Mood disorders are considered relatively common (Halter, 2018). Although almost everyone has periods of sadness and joy, people who have experienced major depression, such as bipolar, know that it is much more than "the blues." For people with bipolar, the other end of the spectrum, known as mania, is more than just being really happy. These disorders can be detrimental to patients and often are treated with therapy and medication.

Healthcare Professional Consideration: Healthcare professionals who are not used to dealing with patients experiencing high levels of anxiety may begin to feel anxious themselves as they interact with these individuals. In fact, the healthcare professional may become anxious simply as a result of trying to calm an extremely anxious patient. If this begins to happen, remembering that interaction with a patient who is anxious can cause anxiety symptoms is helpful. If that does not work, asking another clinician to care for the patient for a while is prudent behavior. If the healthcare professional is anxious, the patient will sense the healthcare professional's anxiety, and the situation will escalate. Healthcare professionals should feel comfortable asking for help from one another when caring for patients with anxiety (Rasheed et al., 2019).

CAUSES AND PRECIPITATING EVENTS OF ANXIETY

Almost everyone experiences dread and fear of the unknown at one time or another. Often the specific cause of anxiety and the precipitating events that lead to it may be unclear or unknown. Anxiety is generally related to situational, maturational, or other factors related to the patient's basic needs for food, air, comfort, and security. When these feelings escalate, the individual often experiences moderate or higher levels of anxiety.

As people go through maturational stages and their required role changes as part of normal growth and development, psychological disequilibrium can occur. Adolescence, marriage, parenthood, career changes, and retirement are examples of maturational turning points that might trigger a crisis (American Psychological Association, 2016).

Changes to a person's status are generally perceived as stressful. The event can be negative (an illness) or positive (the 1st day at a new job). These events and feelings may culminate in a crisis when a person's normal coping mechanisms fail, and they can no longer cope effectively with day-to-day tasks (Halter, 2018; Townsend & Morgan, 2017).

Situational crises may be related to a specific external event that causes the loss of a person's psychological equilibrium. Examples are the death of a significant other, divorce, school problems, and illnesses. A hospital admission is a stressful event in most cases and can often cause a crisis (International Society of Psychiatric-Mental Healthcare professionals, 2020). The precipitating stressors are different for each person. Having an illness diagnosed or being injured can provoke an identity crisis. In addition to coping with the fear of the disease or injury itself, people who are ill or injured may have to change their views of themselves.

Healthcare Professional Consideration: If a patient is having difficulty dealing with stressful situations and anxiety begins to be a common symptom, there are many coping strategies that the healthcare professional might suggest. Physical activity, particularly in the form of a regular exercise program, is helpful for stress management and provides significant health benefits. Walking, swimming, yoga, and biking are a few examples of activities that require movement. Patients should be encouraged to find something they enjoy and can continue with on a regular basis. Hobbies are also useful in combating stress. Regular participation in activities such as baking, photography, art of various kinds, scrapbooking, gardening, and many more all provide relaxation and a time to focus on something the person enjoys. Many times, there are community groups made up of people who are all interested in the same hobby. Attending meetings with like-minded people provides socialization, which can also benefit someone who is anxious.

Evidence-based practice! Just by surfing the Web, individuals can research and learn about their health conditions without consulting any healthcare provider. Researchers wondered if these Web searches were beneficial or harmful (Brown et al., 2019). Their findings were dependent on the individuals and how high their "health anxiety" was. For some people with high health anxiety, looking on the Internet caused an increase in anxiety. For others, anxiety was lowered as a result of the search. Another factor the researchers considered was how easy it was for the individuals to access their personal healthcare providers. Those with easy access were less likely to have increased anxiety after an Internet search. These findings point out how important it is to help healthcare consumers understand which sites are reliable and how best to use the information available.

LEVELS OF ANXIETY

How anxiety affects a person's abilities varies with the level of anxiety experienced (Table 1). Four levels of anxiety are generally recognized (Halter, 2018; Townsend & Morgan, 2017). They range from mild anxiety to panic. Some anxiety is good for people because it serves to motivate them to action. When patients experience mild anxiety, their perception and attention are heightened, and they can learn. However, if patients' anxiety is at the panic level, they cannot learn and are unable to function (American Psychological Association, 2016). High levels of anxiety in patients may also cause anxiety in healthcare professionals (See Table 1).

Table 1. Levels of Anxiety

Level of anxiety	Changes in cognition, perception, and tension	Effects on learning
1. Mild	• Seemingly heightened sensory input • Increased alertness • Attentive • Slight muscle tension	• Logical problem-solving skills • Able to achieve and succeed in specific tasks • Can solve problem that is causing anxiety
2. Moderate	• Narrowed perception • Misperception of stimuli • Reduced ability to communicate • Difficulty in concentrating • Increased nervousness and tension • Moderate muscle tension • Increased pulse, blood pressure, and respiration	• Some coping skills are still functional • Can follow directions • With some help, the anxiety can be dealt with successfully
3. Severe	• Narrowed perceptual field • Distorted perceptions • Disoriented • Focused on the short term • Shortened attention span • Physical discomfort, if present, adding to a sense of emotional discomfort • Delusions with hallucinations if anxiety is prolonged • Extreme muscle tension	• Ineffective reasoning • Ineffective problem-solving skills • Difficulty focusing on problem solving even with assistance

Table 1. Levels of Anxiety (continued)		
Level of anxiety	**Changes in cognition, perception, and tension**	**Effects on learning**
4. Panic	• Disorganized perceptions • Feelings of being overwhelmed, being out of control, and terror • Unfocused, random, fleeting, irrational, and incoherent thoughts • Severe cognitive impairment	• Inability to learn • Disorganized or irrational reasoning or problem solving • Difficulty with minimal functioning • Unable to reduce anxiety or solve the problem • Cannot function at this level for long periods

Levels of Anxiety. (2021). The Recovery Village Drug and Alcohol Rehab. https://www.therecoveryvillage.com/mental-health/anxiety/related/levels-of-anxiety/

Box 3-1. Anxiety Is Contagious

Healthcare professionals who are not used to dealing with patients who are experiencing high levels of anxiety may begin to feel anxious themselves as they interact with these individuals. In fact, the healthcare professional may become anxious simply as a result of trying to calm an extremely anxious patient. If this begins to happen, remembering that interaction with a patient who is anxious can cause anxiety symptoms is helpful. If that does not work, asking another clinician to care for the patient for a while is prudent behavior. If the healthcare professional is anxious, the patient will sense the healthcare professional's anxiety, and the situation will escalate. Healthcare professionals should feel comfortable asking help from one another when caring for patients with anxiety.

Anxiety Is Contagious. Here's How to Contain It. (2021). Harvard Business Review. https://hbr.org/2020/03/anxiety-is-contagious-heres-how-to-contain-it

It is important for healthcare professionals to accurately assess their patients' anxiety levels, respond accordingly (Halter, 2018; Townsend & Morgan, 2017), and understand that there are effective treatment options (Anxiety and Depression Association of America, 2016).

Case study 1

Judy Norris, a 45-year-old woman, came to the outpatient clinic complaining of difficulty breathing and feeling incredibly nervous. She said her nerves were out of control and that she needed help immediately. When the healthcare professional began the preliminary interview, she asked Judy if there was anything different happening in her life at this time. Judy said she wanted treatment right away because she had a job interview the next day and did not want to mess it up.

Self-Assessment Quiz Question #1

Which response by the healthcare professional would be the most therapeutic?

a. "It sounds like this interview must be very important to you."
b. "Where is your interview?"
c. "Oh, I don't think you will mess it up."
d. "Perhaps the physician can prescribe something to help you."

Case study 2

Judy tells the healthcare professional that it is an important interview for her. It is with a larger company than she currently works for. Her responsibilities would be expanded, and her pay would be significantly higher. The best part about this potential new job to Judy is that she could really use all of her skills in a meaningful way; she calls it her dream job. As she talks about the job, the healthcare professional notices that Judy has already calmed down significantly. She is able to communicate her thoughts in a coherent fashion, and she is having no difficulty breathing.

Self-Assessment Quiz Question #2

What level of anxiety is Judy experiencing while talking to the healthcare professional?

a. Mild.
b. Moderate.
c. Severe.
d. Panic.

PHYSIOLOGICAL RESPONSES

In addition to the many emotional changes that happen when a person is feeling anxious, several physical signs and symptoms may occur. As an individual begins to experience anxiety, the body starts a process commonly known as "fight or flight." Hormonal responses are stimulated to provide protection to the individual by physiologically programming the body to give priority to those functions that are the most necessary. Briefly, the hypothalamus sends adrenocorticotrophin-releasing hormones to the pituitary gland, which in turn secretes adrenocorticotropic hormones. From there, adrenaline and cortisol are released by the adrenal and sub adrenal glands. The physical effects that individuals with anxiety experience are the result of the accelerated production of these hormones on the body (Jameson, 2016). These effects are generally negative and may include the following:

- Abdominal distress
- Chest pain or discomfort
- Choking or smothering sensations
- Cold, icy hands
- Diaphoresis
- Dizziness
- Dry mouth
- Dyspnea
- Elevated blood pressure
- Faintness
- Frequent urination
- Headaches

- Increased respiratory rate
- Insomnia
- Nausea
- Palpitations
- Queasiness
- Restlessness
- Tachypnea
- Trembling
- Voice tremors

Case study 3

Penny, a healthcare supervisor for a large hospital unit, had a discussion with Anna, the head of continuing education at the hospital, about why the staff seemed to pay little attention during in-services and had mediocre performance on the final testing. Although coming to the in-service itself was mandatory, the healthcare professionals received credit for attending regardless of their final test scores, as long as they turned in a testing form.

Self-Assessment Quiz Question #3

What level of anxiety are the staff healthcare professionals most likely experiencing regarding their mandatory in-services and the tests?

a. Mild.
b. Moderate.
c. Severe.
d. None.

Case study 4

Both Penny and Anna agreed that there should be some consequence attached to the test performance at the in-services, if only to motivate the staff to pay closer attention and to do better on the tests.

Self-Assessment Quiz Question #4

What anxiety level would Penny and Anna want to see in the healthcare professionals attending the in-service?

a. Mild.
b. Moderate.
c. Severe.
d. Panic.

DIAGNOSTIC ASSESSMENT

The following are the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5) diagnoses and the North American Healthcare Diagnosis Association (NANDA) healthcare diagnoses that might be applicable to patients with emotional or psychological issues related to anxiety. Of course, circumstances may warrant additions to the list of diagnoses for any specific patient, but those listed here are likely for anyone experiencing anxiety symptoms or disorders.

DSM-5 psychiatric diagnoses

The psychiatric disorders generally associated with anxiety are as follows (American Psychiatric Association, 2013):

- Specific phobia (marked fear or anxiety about a specific object or situation)
- Generalized anxiety disorder (symptoms of anxiety present for at least 6 months with extensive worry but without panic attacks)
- Panic disorder (repeated experiences of terror, feelings of impending death, inability to breathe comfortably), with or without agoraphobia (marked fear or anxiety of being in open spaces or enclosed places)
- Substance/medication-induced anxiety disorder (symptoms of panic attacks or anxiety develop during or soon after a substance intoxication or withdrawal or after exposure to a medication)

NANDA healthcare diagnoses

The possible NANDA healthcare diagnoses may include one or more of the following (Herdman & Kamitsuru, 2018):

- Anxiety (e.g., mild, moderate, severe, panic)
- Decisional conflict
- Deficient knowledge
- Confusion (e.g., acute, chronic)
- Coping (e.g., ineffective, readiness for enhanced, compromised family, defensive)
- Fear
- Ineffective coping
- Impaired memory
- Post-trauma syndrome or risk
- Powerlessness
- Ineffective role performance
- Health-seeking behavior
- Self-care deficit
- Self-esteem (e.g., chronic low, situational low, risk for low)
- Disturbed sleep pattern
- Impaired Social interaction
- Social isolation
- Spiritual distress, risk; readiness for

HEALTHCARE INTERVENTIONS

Healthcare professionals can help patients cope effectively with mild or moderate anxiety by having them use (a) strategies that have been helpful in the past and (b) other problem-solving methods as needed. Patients who are experiencing severe anxiety or panic need help coping and reducing their level of anxiety so that their problem-solving abilities can be effective. It is important for the healthcare professional to remain calm.

Possible healthcare interventions (along with their rationales) that may be appropriate for patients who are experiencing anxiety are listed in Table 2.

Table 2. Healthcare Interventions and Rationale for Patients Who Are Experiencing Anxiety	
Healthcare Intervention	**Rationale**
Establish trust, maintain a calm demeanor, and be nonthreatening.	To be effective with healthcare interventions, establish a trusting relationship with the patient. Additionally, it is well known that anxiety is contagious. A patient's anxiety can affect the healthcare professional and other staff members and vice versa. Maintain a calm demeanor to comfort the patient.
Reassure patients of their safety and security. Staying with the patients, just by being there, can provide comfort.	Patients may be experiencing a threat to their physical well-being or self-concept.
Communicate in a calm and clear manner with a succinct message and simple language, particularly when the patients have a high level of anxiety.	When their anxiety levels are high, patients may be unable to comprehend at their usual level of awareness.
Explore the patients' perception of harm and assess the actual potential danger.	Clarifying the reality of the situation and assisting with the patients' coping mechanisms can reduce the patients' anxiety level.
Decrease external stimuli by dimming lights, lowering background noise, and limiting the number and frequency of visitors.	External stimuli can increase anxiety levels.
Encourage verbalization.	By talking through some events and precipitating factors, patients can • gain insight into the precipitating factor, • gain insight into their manner of coping with the anxiety itself, • enact new strategies for coping, and • verbalize the problem.
Assist patients with skills they currently cannot use because of their anxiety.	When anxiety is especially high, usual tasks are more difficult, and learning new tasks is harder.
When the patients' anxiety level has been reduced, explore the precipitating events that led to anxiety.	A recurrence of anxiety may be prevented or reduced in severity when the patients can recognize its early signs and begin using strategies to reduce it.
Teach patients to identify and describe feelings of anxiety.	When patients understand their experience of anxiety, they can • recognize the early signs and symptoms, • perhaps reduce the level of or thwart the episode, and • be receptive to adopting new coping responses.
Demonstrate and review available anxiety-reducing techniques, and help patients choose techniques and strategies to reduce their anxiety levels. These include • relaxation techniques (e.g., breathing techniques, visualization, muscle tension reduction), • physical exercise, • meditation and yoga, • occupational activity, and • diversional activity.	By reducing the level of anxiety, restoration of homeostasis is more obtainable.
Include the patient in setting goals and planning care.	Allowing patients a choice increases their chances of success, their independence, and, therefore, their self-esteem.
Administer anxiolytic medications as prescribed, assess the need for medications to be given as needed, assess the effectiveness of the drug, and monitor the patient for potential adverse side effects.	Antianxiety medications prescribed for short-term use can reduce the patients' anxiety.
Teach the patients about the self-administration of anxiolytic medications.	The patients may benefit from anxiolytic medications and then continue taking them as outpatients.
Assess the patients' mood and observe for signs of depression and any possible suicidal ideation. If present, notify the patients' physician and refer for ongoing psychiatric treatment.	Severe anxiety can coexist with depression.
Teach the importance of sleep.	Sleep deprivation reduces the ability to cope with anxiety.
Encourage the patients to reduce caffeine intake.	Caffeine intake can induce higher levels of anxiety because it potentiates the fight-or-flight response, increasing heart rate, dilating pupils, and increasing feelings of jitteriness.
Teach strategies to quit smoking.	Having a cigarette may reduce the sense of anxiety for a short time, but this is because withdrawal symptoms are briefly quieted. Nicotine has anxiety-producing qualities.
National Center for Complementary and Integrative Health [NCCIH], 2016	

Table 3. Part of a Care Plan for a Patient with Anxiety	
Problem / Healthcare Diagnoses	The patient has anxiety related to change in body image as evidenced by tension, verbalized, and demonstrated helplessness, verbalized fear, uncertainty, expressed concerns, grimacing, perspiration, sobbing, and irrational behavior (e.g., pulling at intravenous line, shouting).
Treatment Plan / Approaches	1. Assess level of anxiety. 2. Establish therapeutic relationship. 3. Offer appropriate interventions on the basis of level of anxiety. ● Mild anxiety: Listen to the patient and redirect activities. ● Moderate anxiety: ○ Consider as-needed medications if prescribed. ○ Offer a choice between two things. ○ Try to decrease stimuli. ○ Offer an opportunity for physical activity. ○ Use a matter-of-fact approach. ● Severe anxiety: Ask a patient-care technician to stay with the patient or check on the patient often. 4. Help the patient recognize feelings and describe what preceded them. If possible, connect the feeling to the unmet need; describe the patient's behavior and connect it to the anxiety.
Colibri Healthcare, LLC, 2021.	

Healthcare Professional Consideration: Sometimes a patient is extremely anxious and unable to communicate successfully with a healthcare professional who is sitting and trying to have a face-to-face discussion. Such a situation might warrant trying an unconventional approach. One possibility is to try working a puzzle together. There are several reasons this might work:

1. Some silence would be expected while both parties are concentrating on finding pieces to the puzzle.
2. Conversation can initially be confined to comments about the puzzle itself.
3. The patient can be reinforced when a piece is successfully placed.
4. Verbal exchanges are nonthreatening as there is no eye contact because the healthcare professional and patient are both looking at the puzzle.

HOLISTIC CONSIDERATIONS

Today's healthcare professionals are encouraged to use evidence-based complementary therapies in the care of patients with anxiety. Guided imagery is a tool that healthcare professionals can use to assist patients who are anxious (National Center for Complementary and Integrative Health [NCCIH], 2016). Guided imagery involves using mental images to calm oneself, reduce the stress response, reduce pain, or blood pressure, and promote sleep. This relaxing visualization has been found to enhance healing and physical health in numerous studies. The power of the mind over biology is studied in the field of psychoneuroimmunology and is relevant to many disciplines besides healthcare; for example, athletes who use visualization techniques are known to improve performance. Psychologists teach patients these techniques to reduce panic attacks or phobic reactions. However, guided imagery is not recommended for people who are hallucinating or any break with reality (NCCIH, 2017).

To use guided imagery with a patient, the healthcare professional should ask the patient to recall a calm and safe place. Instructing the patient to begin with some slow breaths and lower or close their eyes, the healthcare professional should guide the patient to breathe mindfully. In a calming voice, the healthcare professional should describe what the patient might see, feel, smell, taste, or hear in this environment. With attention to each of the senses, it is easier for the patient to experience and remember that safe, calm place and begin to relax. Guided imagery scripts and recordings are available online to assist the healthcare professional in gaining competence with this practice.

Evidence-based practice! Many researchers are attempting to find scientific support for the use of alternative and complementary therapies. One area that has received a great deal of interest is in the use of aromatherapy. Essential oils have been used throughout history and in many different cultures to relieve pain, promote sleep, and reduce anxiety. Until recently, there was little evidence to support their use. A study conducted by a team of researchers (Lindgren, 2019) in a community magnet hospital was able to provide support for the use of essential oils in helping patients with anxiety and pain. It found that treating patients with a combination of essential oils (frankincense, blue cypress, lavender, and melaleuca) reduced anxiety and pain more than just the administration of medications. Such findings will assist with treatment planning for patients with anxiety.

Case study 5

Roberto Torres is a 22-year-old male patient who was admitted to the orthopedic unit of a general hospital with a fractured femur, an injury that occurred while he was playing football. It is the first time he has had a serious injury. Roberto recently had surgery to treat his injury, and his left leg is in a cast. He has an intravenous line and a urinary catheter in place. He is a big man and seems uncomfortable being confined to the hospital bed. He has a prescription for pain medication that does not seem to be meeting his needs for pain relief. The night healthcare professional reported that Roberto slept poorly and complained often.

Twenty-four hours after Roberto's surgery, his healthcare professional, Katrina Park, notices that he is extremely restless. He calls for Katrina often because of minor complaints and seems to want a healthcare professional to attend to him constantly.

When Katrina answers Roberto's call light once again, she finds him crying and difficult to console. She approaches him, and he startles her by jumping upright in the bed, pulling at his intravenous line, and shouting some obscenities. Then he yells, "You just don't get it! This is driving me crazy!"

Self-Assessment Quiz Question #5

What level of anxiety is Roberto experiencing at this point?

a. Mild.
b. Moderate.
c. Severe.
d. Panic.

DEPRESSIVE AND BIPOLAR DISORDERS

Depressive and bipolar disorders are general categories for illnesses that influence behavior, mood, and thoughts and are classified as mood disorders. They affect the way people eat and sleep, the way people feel about themselves, and the way people think. According to the American Psychiatric Association's (2013) Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5), these disorders may be characterized by (a) sadness, social withdrawal, guilt, and the expression of self-deprecating thoughts (depressive symptoms); (b) an elevated, expansive mood that includes hyperactivity, pressured speech, decreased need for sleep, poor judgment, and impaired impulse control, lasting most of the day every day for at least a week (mania); or (c) a combination of both. On either end of a continuum, from a mood so "up" that normal social and economic boundaries are forgotten to one so "down" that an individual is at risk for suicide, mood disorders include a spectrum of diagnostic categories and varying degrees of risk to the individual.

A specific diagnosis and appropriate interventions are naturally dependent on what the patient reports. The severity of the symptoms influences the determination of a diagnosis, the patient's desire for treatment, and the risk for suicide. Although patients often seek help during the depressive episode of a bipolar disorder, they frequently do not recognize that the times of high energy and excessive behavior are problematic. Specific criteria for these disorders are listed in the DSM-5. North American Healthcare Diagnosis Association (NANDA) healthcare diagnoses also vary for these illnesses, depending on the particular situation and symptom presentation (Herdman & Kamitsuru, 2018). Learning to recognize the symptoms and conduct a risk assessment for patients experiencing mood disorders is important for healthcare professionals in all healthcare settings.

PREVALENCE

Given the many different ways mood disorders can manifest in individuals experiencing them, they are considered relatively common (Halter, 2018). Although almost everyone has periods of sadness and joy, people who have experienced major depression know that it is much more than "the blues." At the other end of the spectrum, mania is more than just being really happy. Because of its frequency and potential risk to life, depression is often discussed as part of news coverage in the media or through storylines on popular television shows, and it is featured in advertisements for antidepressant medications. Because patients may exhibit any of the potential behavioral patterns, healthcare professionals should be aware of the other types of mood alterations as well.

Depression is poorly recognized and underdiagnosed. It is among the most treatable of psychiatric illnesses, with estimates that as many as 80% (and possibly more) of depressed patients respond positively to treatment consisting of "talk" therapy, antidepressants, or a combination of these (Mayo Clinic, 2018b). Depression is the most common mental disorder in the United States (National Institute of Mental Health [NIMH], 2019). However, depression is often mistakenly labeled as some other condition and therefore is not treated appropriately.

When patients describe their situation with words such as "sad," "hopeless," "nothing to live for," and "despair," they are indicating depression on some level. The healthcare professional should be alert for other assessment data that can confirm a mood disorder. Major depressive disorder is an alteration in mood – a disturbance in a person's feelings marked chiefly by sadness, apathy, and loss of energy – that makes it almost impossible to carry on usual activities, sleep, eat, or enjoy life (National Institute of Mental Health, 2016). Correct diagnosis is critical to initiating appropriate treatment and preventing the patient from sinking deeper into depression and, perhaps, attempting suicide.

Healthcare Professional Consideration: While conducting an initial assessment of a patient, intake healthcare professionals may become unusually tired and worn out and begin to feel that they cannot wait to get out of the room of this particular patient. Highly likely, this is a depressed patient. Taking care of patients who are depressed is often frustrating, stress-evoking, and tiring for the healthcare professional. Even if the patient has not described feeling depressed, the healthcare professional should ask the patient about it. Healthcare professionals must learn to trust their intuition when caring for a patient who is depressed. The holistic healthcare professional becomes intentionally self-aware and examines how caring for patients affects the self.

NIMH » Depression. (2021, July 23). NIMH. https://www.nimh.nih.gov/health/publications/depression/?NIMH+symptoms+of+depression=

Self-Assessment Quiz Question #6

A healthcare professional finds herself uncharacteristically snapping at a coworker. The healthcare professional should:

a. Take a deep breath and keep going.
b. Realize it is the coworker's fault.
c. Be mindful of her present mood and examine what might have triggered it.
d. Think mindfully about it before she goes to sleep that night.

Suicide is a serious problem and its connection with depression is strong; all depressed patients should be assessed for suicidal ideation. Contrary to common myth, asking a person if they are considering suicide will not put the idea into their head. If the healthcare professional suspects that a patient is contemplating taking their life, a thorough assessment needs to take place immediately.

Depression is a biological illness affecting individuals all over the world. It is a leading cause of disability in the United States and many other developed countries (Mayo Clinic, 2018b), although rates are often difficult to determine because of underdiagnosed and misdiagnosed cases. A depressive episode can occur once in a lifetime, or, as with many people, depression can recur several times. The most serious consequence of depression is

suicide, but there are many other consequences that influence social connections, general health, and well-being.

In the United States, 7.1% of all adults are diagnosed with depression, but many do not seek diagnosis and treatment. The prevalence of depression has not increased significantly since 2001 in the United States. Only 34.17% of persons with severe depression were diagnosed by a health professional. Although more people are receiving medical diagnosis and treatment than previously, symptoms reported remain severe, even with treatment (Mental Health America, 2017). Major depression affected an estimated 16 to 19 million adults aged 18 or older in the United States who had reported at least one major depressive episode in the past 12 months (Mental Health America, 2017; Substance Abuse and Mental Health Services Administration, 2020).

Depression is common in older adults and often goes undiagnosed. In fact, depression is the most common mood disorder in older adults. Estimates of depression among those older than 65 years range from 5% to 20% and perhaps higher (Centers for Disease Control and Prevention [CDC], 2016b; Mental Health America, 2017; NIMH, 2017). Depression is not part of normal aging. Older adults are at increased risk because they often have other chronic health conditions or are taking medications that contribute to the incidence of depression (Mental Health America, 2017; NIMH, 2017). Treatment for depression in older adults is often overlooked because of the false belief that depression is normal. Healthcare professionals should screen older adult patients for depression. If an older adult makes the decision to commit suicide, the rate of successful suicide on first attempt is much higher than in other age groups (Mental Health America, 2017).

Depression and suicide are also growing problems among youth. According to 2017 data, depression (low level and major depression) has been diagnosed in approximately 11.2% of 13- to 18-year-old adolescents in the United States (Child Stats .gov, 2020). Teenage girls have higher rates of depression than boys (Mental Health America, 2017). It is estimated that between 3.3% and 11% of the adolescent population has been diagnosed with major depressive disorder (NIMH, 2017). Suicide is now the leading cause of death for the 10- to 34-year age group (NIMH, 2021).

Younger children (aged 12 years and younger) can also be diagnosed with depression, and the rates of depression in undiagnosed children are not known. It is estimated that approximately 5% of young children suffer from depression, although most are undiagnosed (American Academy of Child and Adolescent Psychiatry, 2018). Healthcare professionals should be especially alert for signs of depression in young children, knowing that they may not be as easily diagnosed. Obesity in children is on the rise and is associated with higher rates of depression (Ogden et al., 2016). Even young children are not immune to the potential for major depression.

Bipolar disorder (formerly known as manic depressive illness) is characterized by an alternating pattern of emotional highs (mania) and lows (depression); the disorder can range from mild to severe. An epidemiological study in 2005 estimated that 3% to 5% of the population has bipolar disorder (NIMH, 2017). It often begins in adolescence or early adulthood and may persist for life. Although it is not nearly as common as depression, bipolar disorder can also have life-altering effects. For example, in the manic phase, patients can deplete their life savings; then, as they plunge into depression, suicide becomes a risk. There may or may not be periods of normalcy that provide relief from this cyclical disorder. The cycles from mania to depression often become more rapid as the disease progresses. As with depression, bipolar disorder is seen in all age groups and appears more severe for younger patients. As with all mental health problems, early diagnosis, effective treatment, and careful monitoring are extremely helpful.

THEORIES ON CAUSATION

Different investigators have different opinions about the causes of depressive and bipolar disorders. There is no doubt, based on the past decade of research, that depression and bipolar illness are brain-based disorders caused by complex interactions between many biochemical, genetic, cognitive, behavioral, and environmental sources that affect people from all ages, races, and ethnicities (Depression and Bipolar Support Alliance, 2020). Some psychosocial and biological theories describe the more widely known and accepted causes of depression.

Psychosocial theories

The psychodynamic or psychoanalytic view of depression is that a loss or lack of love when the depressed person was a young child caused conflicting feelings and grief. When these feelings go unresolved, the result may be rage, hostility, bad mood, and anger turned inward. Thus, the person becomes depressed (American Psychoanalytic Association, n.d.).

Cognitive theory suggests that depressive feelings result from faulty thinking, ideas, and beliefs; a distorted view of others; and low self-esteem. When the person's thinking or cognition is corrected through cognitive therapy, the depression is alleviated (APA, 2013).

Interpersonal and environmental theories view depression as the result of a breakdown in communication with family and friends and problems with work, school, and carrying out general activities. Individual, group, and family therapies are used in this context (APA, 2013).

Biological theories

Research indicates that depression may result from variations in levels of the biogenic amines. This theory relates to the catecholamines, dopamine, norepinephrine, and serotonin, and their functioning at receptor sites on brain cells and nerves. There is increasing evidence that supports a chemical connection with depression, although researchers do not yet understand specific pathways that are altered in individuals with depression (Halter, 2018).

Genetic factors also play a role in mood disorders. The prevalence of depressive and bipolar mood disorders is higher among blood relatives than among the general population (Mayo Clinic, 2018a). There is some evidence of a stronger maternal genetic link to depression It has also been shown that the closer the genetic relationship, the greater the likelihood of the diagnosis.

Most recently, a link has been found between inflammation and depression. Patients with depression show slightly elevated C-reactive protein levels in their blood, indicating low-grade inflammation (Osimo et al., 2019). Also, people with chronic inflammatory illnesses seem to have a higher incidence of depression than patients with other chronic illness.

Ongoing scientific research is being conducted in the field of mental illness. Although no definitive cause of depression has been found, more is known about its biological markers, and treatments are being used successfully. Many patients benefit from antidepressant medications, indirectly pointing toward a biological cause. Certainly, more research is needed to pinpoint which medication is best for a particular patient. Right now, to a large extent, healthcare professionals rely on trial and error to discover the most beneficial medication.

RISK FACTORS

Risk factors for depression and bipolar disorders include some physical illnesses that can have a cause-and-effect relationship with depression. Having a chronic illness such as heart disease, stroke, or Alzheimer's disease puts patients at higher risk of developing depression. In these cases, it is necessary to first treat the underlying cause, if possible, to address the depression or other mood disorder (Halter, 2018; National Institute of Mental Health, 2016).

Illnesses

There is increasing evidence that depression is associated with changes in immune functioning. Many inflammatory chronic diseases are associated with high levels of cytokines leading to alterations in immune functioning. These messenger proteins trigger and promote inflammation. Patients with depression have been found to have high levels of cytokines and other inflammation markers. Cytokines and other inflammatory markers provide a link between depression and immune function (Liu et al., 2020). It makes sense that people with inflammatory chronic diseases also have a higher prevalence of depression compared with those who have other chronic diseases.

The prevalence of depression is generally higher in persons who have concomitant medical problems (CDC, 2019, 2016b; Deschênes et al., 2015; Halter, 2018; Kyoung et al., 2015). Table 4 lists some of the medical conditions associated with a higher prevalence of depression.

Table 4. Medical Conditions Associated with Depression

Neurologic Disorders	• Neoplasms • Stroke • Multiple sclerosis • Infection • Trauma • Migraine • Parkinson's disease • Epilepsy • Alzheimer's disease
Endocrine Disorders	• Adrenal disorders • Thyroid disorders • Menses-related disorders • Postpartum disorders
Infectious and Inflammatory Disorders	• Chronic fatigue syndrome • Pneumonia • AIDS • Tuberculosis • Rheumatoid arthritis
Other Medical Disorders	• Vitamin deficiency • Anemia • Cancer (especially pancreatic cancer) • Cardiopulmonary disease • Chronic pain • End-stage renal disease
Non-Mood-Related Psychiatric Disorders That Often Coexist with a Diagnosis of Depression	• Obsessive-compulsive disorder • Panic disorder • Substance-related disorders • Personality disorders • Eating disorders

Based on Centers for Disease Control and Prevention. (2019)/ Depression Statistics. https://www.cdc.gov/nchs/fastats/depression.htm ; Centers for Disease Control and Prevention. (2016a). Children's mental health. Anxiety and depression. https://www.cdc.gov/childrensmentalhealth/depression; Deschênes, S. S., Burns, R. J., & Schmitz, N. (2015). Associations between depression, chronic physical health conditions, and disability in a community sample: A focus on the persistence of depression. Journal of Affective Disorders, 179, 6-13. http://dx.doi.org/; Kyoung, K. W., Dayeon, S., & Won O. S. (2015). Depression and its comorbid conditions more serious in women than in men in the United States. Journal of Women's Health, 24, 978-985. 10.1089/jwh.2014.4919.

Medications

Long-term use of certain medications may cause symptoms of mania or depression in some people. Depression or mania is an idiosyncratic side effect of many medications, including the following (Halter, 2018: National Institute of Mental Health, 2016):
Antidepressants (may precipitate mania)

- Sedatives, tranquilizers, barbiturates, and central nervous system depressants
- Steroids (e.g., glucocorticoids, anabolic steroids)
- Cardiac medications (e.g., antihypertensives and blood thinners)
- Hormones (e.g., oral contraceptives, thyroid medications)

Stress

Stressful life events are difficult for some people, but the same events may not pose problems for others. When assessing patients, the healthcare professional should be aware of the patients' perceptions of their problems as a means of observing for signs and symptoms of depression. Getting a sense of the importance of a situation to the patient is crucial in determining its possible contribution to a depressive episode. Teaching stress management strategies is part of healthcare.

Grief reaction

Depression can be associated with real and imagined loss, such as anything a person valued or once had (or wanted) but is now absent. This includes losing a spouse, parent, child, other family member, or friend to death or even relocation. Situational grieving associated with events such as job loss, divorce, and financial loss commonly are associated with short-term depression. Clearly, some change in mood is considered normal when a loss is experienced, but when it becomes extreme, the patient's condition can turn into long-term depression categorized as bereavement (American Psychiatric Association, 2013; Halter, 2018).

Trauma

Some forms of disaster or physical trauma, such as an accidental injury or a major illness, can precipitate an episode of depression (Wheeler, 2017). Individuals who are injured in a motor vehicle accident and experience residual effects in the form of pain or loss of function may become depressed for some time. As with grief, some degree of sadness or unhappiness is clearly normal, but assessment for depression is in order if symptoms are prolonged.

Postpartum depression

Approximately one in nine women experience postpartum depression (CDC, 2016c). Many more mothers have "baby blues" during the 10-day postpartum period. Baby blues is transient and does not impair functioning. It should not be confused with postpartum depression or postpartum-onset mood episodes (American Psychiatric Association, 2013). It is caused by hormonal shifts or inner psychological conflicts over becoming a mother for the first time or once again (Halter, 2018; National Institute of Mental Health, 2016). Up to one in seven women experience postpartum depression (American Psychological Association, 2020). About half of these women had symptoms during their pregnancy that became worse after the baby was born. Healthcare professionals should encourage patients to report symptoms of depression early, and they should continue to monitor these patients.

Symptoms of postpartum depression generally occur 3 days after childbirth, usually within the 1st week (although they can also manifest much later), and include sleep disturbances, increased anxiety, fatigue, irritability, or negative or ambivalent emotions toward and about the baby. The severity of signs and symptoms varies (Halter, 2018). Perinatal depression, a more widely encompassing term, refers to depression resulting from issues during the pregnancy period through the first 12 months after the baby's birth. Less often, postpartum depression can lead to full-blown psychosis (Halter, 2018). These patients are profoundly depressed and suicidal, hallucinating, or delusional, and have homicidal thoughts or unreal feelings about the child (e.g., that the child is sick or dead). This is not a common problem; it occurs at an estimated rate of 0.89 to 2.6 in 1,000 births (VanderKruik et al., 2017). Because of the brief time new mothers stay in most maternity units and birthing centers, healthcare professionals working on those units may not see the full extent of these disorders.

New mothers may be irritable, anorectic, easily fatigued yet unable to sleep, and tearful. These episodes are usually self-limiting, lasting only a few days. However, these signs and symptoms occur frequently enough to warrant providing the new mother with bedside education about them while she is in the maternity unit. Healthcare professionals working in the community who may see new mothers in their homes 1 week or more after childbirth should be alert to the signs and symptoms of the "baby blues" and its related psychiatric disorder.

Age

An increase in depression has been noted in persons aged 60 years and older. Among older adults, the prevalence of depression is generally twice as high in women compared with men (National Institute of Mental Health, 2016). There has been an increase in the diagnosis of depression in the past 10 years for individuals who are 12 to 18 years of age (American Psychological Association, 2019).

Some of the other high-risk factors for depression include the following:

- Physical illness
- Recent significant loss (e.g., the death of a family member or friend)
- Events such as job loss and subsequent financial problems
- Unhappiness with one's occupation or having no job at all
- Low economic status
- Lack of social networks and social isolation

DIAGNOSTIC ASSESSMENT

Healthcare professionals and other healthcare team professionals conduct psychosocial assessments of each patient whom they encounter. Patients with depression may present with physical or psychological symptoms in various clinical settings. Through empathetic listening, healthcare professionals may uncover symptoms of depression or depressive disorders in patients.

DSM-5 psychiatric diagnoses

The DSM-5 diagnostic categories for symptoms of depression are listed under the two main categories of depressive and bipolar disorders. The healthcare professional may find one of the following psychiatric diagnoses for depressive disorders among the medical diagnoses in the patient's medical record (American Psychiatric Association, 2013):

- Major depressive disorder
- Persistent depressive disorder*
- Unspecified depressive disorder

The ways major depressive symptoms are demonstrated in patients will differ from person to person. To make a diagnosis of major depression, the healthcare provider must determine that a certain number of the following symptoms have been observed within a short time span. All patients must exhibit either one or both of the following (American Psychiatric Association, 2013):

- Depressed mood: feeling sad, empty, hopeless
- Loss of interest or pleasure in usual activities

The patients must also exhibit at least some of these additional indicators (American Psychiatric Association, 2013):

- Disturbance with eating: significant change in weight, a change in amount of food ingested
- Problems with sleep: difficulty falling or staying asleep, sleeping too much or too little, unable to feel rested after sleep
- Constant pacing and/or handwringing; an inability to stay still
- Slowed responses, extreme feelings of tiredness, avoidance of social interaction, and lack of energy
- Feelings of low self-esteem, unworthiness, unnecessary guilt
- Trouble with thinking, distorted thoughts to the point of delusions or hallucinations; cannot concentrate easily
- Obsessing on thoughts of death and/or suicide
- Decreased or absent sex drive

It is important for nonpsychiatric healthcare professionals to be aware of the significance of depression among general hospital

patients. These patients may complain of a variety of physical complaints, such as gastrointestinal problems (indigestion, constipation, and diarrhea), headache, and backache. Additionally, persistent physical symptoms that do not respond to treatment, such as headaches, gastrointestinal disorders, and chronic pain, may indicate depression.

Similarly, the healthcare professional may find one of the following psychiatric diagnoses for bipolar disorders among the medical diagnoses in the patient's medical record:

- Bipolar I disorder
- Bipolar II disorder
- Cyclothymic disorder*

Bipolar I disorder is a disorder in which the person experiences episodes of mania or hypomania (a less intense form of mania) alternating with periods of severe depression. Bipolar II disorder is a different diagnosis that is made when the patient has never had an episode of mania but has shown hypomanic behaviors accompanied by depressive symptoms (NIMH, 2020). The distinction between one of the bipolar categories and major depression can be difficult if the patient presents with only depressive symptomatology (see Table 5). The severity of signs and symptoms in each episode varies from person to person (Mayo Clinic, 2018c).

Table 5. Comparison of Major Depressive Disorder and Bipolar Disorder

Issue of concern	Major depressive disorder	Bipolar disorder
State of mind	Extremely sad, unhappy.	Periodic mood swings between extremely "up" and agitated to extremely sad.
Thought process	Cannot concentrate easily; difficulty with thinking; recall is problematic.	Easily distracted; cannot focus on one thing; racing thoughts; flight of ideas.
Speech pattern	Lack of interest in communicating.	Pressured speech; quick, clipped sentence fragments.
Sleep habits	Significant alterations in sleep patterns; sleeping a lot more than normal or a lot less.	Does not seem to require much sleep.
Energy level	Evidence of less energy.	Abundance of energy; seemingly in constant motion.
Interest in daily activities	Loss of interest in activities previously enjoyed.	Overinvolvement in numerous activities, even ones that are not healthy.
Weight	Changes in weight, either gain or loss.	Probable weight loss because of excessive activity level.
Level of self-esteem	Much lower self-esteem; feelings of unworthiness, guilt, and/or hopelessness.	Exaggerated sense of self.
Suicidal ideation	Frequent thoughts of death and dying; may not have energy to construct a plan.	Possible thoughts of suicide during depressive episodes.

Kempton, M. M. J., PhD. (2011). Structural Neuroimaging Studies in Major Depressive Disorder: Meta-analysis and Comparison With Bipolar. Jama Network. https://jamanetwork.com/journals/jamapsychiatry/fullarticle/1107416

To be diagnosed with mania, the patient has demonstrated an unusually high energy level along with an elevated mood for a week or more. Specific behaviors may include the following (American Psychiatric Association, 2013):

- Has thoughts of self-importance and eagerness to share this with others
- Experiences a seemingly inexhaustible energy level; does not seem to need sleep
- Is very talkative with an apparent "need to talk"; thoughts race from one topic to another
- Easily distracted
- Plans lots of projects to accomplish
- Engages in many various behaviors that are out of character for the individual

NANDA healthcare diagnoses

NANDA healthcare diagnoses for patients with mood disorders may include one or more of the following (Herdman & Kamitsuru, 2018):

- Anxiety (e.g., mild, moderate, severe, panic)
- Coping (e.g., ineffective, readiness for enhanced, compromised family, defensive)
- Grieving (e.g., anticipatory, dysfunctional)
- Hopelessness
- Noncompliance; nonadherence
- Nutrition, altered; more or less than body requirements
- Post-trauma syndrome or risk
- Role performance, ineffective
- Self-care deficit
- Self-esteem (e.g., chronic low, situational low, risk for low)
- Sleep pattern, disturbed
- Social interaction, impaired
- Social isolation
- Violence, risk for other- or self-directed
- Suicide risk

HEALTHCARE PROFESSIONAL INTERVENTIONS

Patients in a general hospital setting may experience a mood disorder. They may be receiving treatment for the disorder before or during their hospital stay. Assessment of suicide risk in these patients is critical. Healthcare interventions for patients who have mood disorders are quite effective in helping the patients maintain a psychosocial balance while in the hospital and perhaps in helping them take steps for ongoing care.

Healthcare professionals who administer care at the bedside can provide valuable assistance to these patients by using some of the healthcare interventions listed in Table 6.

Table 6. Healthcare Interventions and Rationale for Patients with Mood Disorders	
Healthcare intervention	**Rationale**
Be accepting. The patients may have a negative outlook and low self-esteem.	An attitude of acceptance enhances feelings of self-worth.
Be nonjudgmental, develop a trusting relationship, and be open with the patients.	Trust is basic to a therapeutic relationship.
Assess the patients often. Provide a safe environment.	Depressed patients need short, frequent contacts to assure them that they are supported, safe, and attended to, even when they may feel that they are not worth the healthcare professional's attention.
Screen patients for depression by asking: • "During the past 2 weeks, have you felt down, depressed, or hopeless?" • "During the past 2 weeks, have you felt little interest or pleasure in doing things?"	If the patients respond positively to the two questions, the healthcare professional can inform the physician, and the patients can receive appropriate treatment for depression.
Assess the patients for suicidal ideation and initiate safety checks and procedures as needed.	Patients with depression may have suicidal feelings and thoughts. They may need protection from harm.
Assess the patients for any indications of a thought disorder.	Some patients with depression have accompanying psychotic thoughts.
Assess the patients' ability to perform self-care tasks.	Depression may decrease the patients' ability to continue activities of daily living.
Assess the patients' sleep patterns and determine methods to either reduce or increase sleep, for example, by using relaxation techniques, decreasing stimulation at rest time, and drinking warm milk.	Disturbances in sleep patterns are common in patients with depression or bipolar disorder.
Reduce the environmental stimuli for patients experiencing a hypomanic or manic episode.	Patients are generally quite easily distracted when they are manic.
Provide structure and set limits as guides for patients with mania. Do not allow a patient with manic behavior to get exhausted.	Generally, patients with mania show poor judgment and impulsivity; they may need guidance.
Provide the patients an opportunity to express pent-up emotions or discuss problems (e.g., grieving a loss, internal mood, isolation, dysfunctional thinking).	If patients recognize possible precipitating events, they can take steps to: • reduce the occurrence of the events and • devise strategies that may reduce or eliminate the stressors.
Allow the patients to cry in a supportive environment.	The patients may relieve pent-up feelings by crying.
Help the patients determine appropriate ways of expressing anger.	Patients with a moderate amount of depression are often angry.
Assist the patients with problem solving.	Problem solving reduces stresses and increases the patients' self-esteem.
Encourage patients to make their own choices when they experience feelings of powerlessness.	Patients gain a sense of control and mastery when they make choices.
Encourage depressed patients to increase their interpersonal contacts.	Interpersonal relationships can reduce feelings of social isolation.
Administer prescribed medications: • Assess the effectiveness of the medication. • Monitor the patient for potential side effects.	Medications are frequently an effective treatment for depression or bipolar disorder. They need to be administered as prescribed and may take a while to work.
Teach the patients about the self-administration of prescribed medications.	Although beneficial for many patients, medications are quite potent and must be monitored carefully.
If the patients have experienced a loss, describe the stages of grieving, and teach the patients about them.	Knowledge of the process of normal grieving helps patients accept their own feelings.
Colibri Healthcare, LLC., 2021.	

TREATMENT OPTIONS

Different types of treatment are used for patients with mood disorders, and consideration is given to the patients' history as well as the severity of signs and symptoms. In general, a combination of some form of psychotherapy and psychotropic medication is the preferred treatment.

Psychotherapies

Psychotherapy, a goal-oriented approach aimed at helping patients deal with a specific issue, is used in both inpatient and outpatient settings on short- and long-term bases. Patients may be treated individually, within groups, or with family members.

Scientific evidence indicates that several forms of short-term psychotherapy (cognitive, interpersonal, and behavioral) are effective in treating most patients with mild or moderate depression. Psychotherapy can also be helpful to patients with bipolar disorder who are no longer experiencing acute mania. Group work, which involves education and support from professionals and from others with the same condition, has been shown to improve patient outcomes (Hubbard et al.).

Psychotherapy is based on a variety of theories, such as systems theory, communications theory, and interpersonal theory (American Healthcare professionals Association et al., 2014). Psychotherapy can help individuals understand some of the dynamics of their illness and promotes adherence to psychopharmacologic therapy.

Psychopharmacologic therapy

Beginning in the 1960s, the use of tricyclic antidepressants and monoamine oxidase inhibitors (MAOIs), in combination with psychotherapy, constituted the principal mode of treatment and remained so for many years. As research continues, newer forms of medication are introduced, providing more successful treatment and more options for individuals who experience depression.

Depression

Currently, selective serotonin reuptake inhibitors are the first-line treatment for depression because they work faster and have fewer serious side effects than the older drugs. These selective serotonin reuptake inhibitors include:

- fluoxetine (Prozac, Sarafem, Symbyax)
- paroxetine (Paxil, Paxil CR, Pexeva)
- sertraline (Zoloft)
- escitalopram (Lexapro)
- citalopram (Celexa)
- vilazodone (Viibryd)

Generally, tricyclic antidepressants take 2 or 3 weeks to produce initial therapeutic results. They are sometimes prescribed to treat moderate to severe depression. They include:

- amitriptyline
- desipramine (Norpramin)
- nortriptyline (Pamelor)
- protriptyline (Vivactil)
- trimipramine (Surmontil)
- maprotiline

Both tricyclic antidepressants and MAOIs, including phenelzine (Nardil) and tranylcypromine (Parnate), prevent the breakdown of neurotransmitters. Neurotransmitters such as serotonin and norepinephrine keep an individual calm and happy. These drugs allow the neurotransmitters to stay near the nerve cells longer by preventing their breakdown and reabsorption . A more recently introduced medication in the MAOI drug group, selegiline (Emsam), is administered through a transdermal patch and seems to create fewer unpleasant side effects than the earlier MAOIs. MAOIs are primarily used only when other options have failed because they have potentially serious side effects resulting from interactions with certain other medications and foods.

Often the patient's condition improves after the first few weeks of taking antidepressant medications; however, these medications must be taken regularly for 3 to 4 weeks (sometimes as many as 8 weeks) before the full therapeutic effect occurs (Townsend & Morgan, 2017).

Bipolar Disorder

People with bipolar disorder are generally treated with lithium carbonate (Lithobid), valproic acid (Depakene), divalproex (Depakote; Depakote ER), carbamazepine (Epitol, Tegretol, Carbatrol), or lamotrigine (Lamictal, Lamictal XR). These medications are effective in the management and stabilization of the illness 50% to 80% of the time. Patients who are taking lithium carbonate must have their serum drug levels monitored closely. The medication must be taken continuously; its effectiveness is contingent on maintaining a narrow therapeutic blood level. In addition, because lithium is excreted via the renal system, serum creatinine and blood urea nitrogen should be monitored as well. The antiepileptic medications carbamazepine and divalproex additionally require monitoring of hepatic function and platelets periodically because of the increased risk of hepatotoxicity, blood dyscrasias, and pancreatitis.

Electroconvulsive Therapy

Electroconvulsive therapy (ECT) can be an effective treatment for the alleviation of depression. Generally, it is used only after a trial of antidepressants has failed or for patients at extremely high risk for suicide.

During the procedure, the patient is anesthetized, and a seizure is induced. Six to 10 treatments are given in a series over 2 to 3 weeks. ECT is indicated primarily for major depressive disorder. Today patients are given lower doses of current and are sedated, so ECT is much safer than in the past.

Although the short-term memory loss associated with this type of therapy is well known, more profound and longer lasting adverse effects are rare. ECT is used for people whose depression does not respond to medications, for those at high risk of suicide, and for severely depressed older adults who cannot take medications because of heart disease (Halter, 2018).

In some healthcare settings, healthcare professionals may assist with the administration of ECT on an inpatient or outpatient basis and provide healthcare to the patient who has received ECT. On a home visit, at an outpatient clinic, or during an office visit, the healthcare professional needs to monitor the effects and side effects of treatment for patients who have had ECT.

Case study 6

Jackson is a 19-year-old college student who recently withdrew from all courses after a manic episode that resulted in a police investigation. He reports binge alcohol drinking, impulsivity, and several long periods of deep depression. His diagnosis of bipolar disorder is devastating to him and his family.

Self-Assessment Quiz Question #7

Teaching for this family should include all except:

a. The side effects of antipsychotic drugs.
b. The importance of staying on the medications, even after the symptoms are reduced.
c. The importance of avoiding all over-the-counter medications.
d. The importance of a gluten-free diet.

Self-Assessment Quiz Question #8

The healthcare professional should also teach the family that:

a. Jackson is not behaving appropriately.
b. If the treatment plan is too cumbersome, Jackson can stop.
c. There are community and online resources because group support has been found to be effective.
d. Jackson is old enough to manage his health independently.

Evidence-based practice! Diet matters in all things. As depression is thought to be part of an inflammatory process, eating an anti-inflammatory diet is worth trying (Tolkien et al., 2019). The Mediterranean diet includes foods high in antioxidants. Whole foods, fresh raw or slightly cooked vegetables, foods rich in omega-3 fatty acids, spices such as turmeric, and some teas are examples of these foods.

Additionally, there is strong evidence that specific vitamins and minerals are effective as part of an approach to reduce inflammation and depression and increase overall health. One study (Yeum et al., 2019) suggested supplementing with vitamins D, B12, B9, and vitamin C, as well as zinc, selenium, and omega-3 fatty acids.

Healthcare Professional Consideration: Self-care of the healthcare professional is an important part of treating patients with mood disorders. Patients with mania can be quite fun, though their behaviors and the consequences of their actions often go too far. Patients who are severely depressed are difficult to work with, and after the interaction the healthcare professional feels tired, slow, and perhaps irritated or depressed. Becoming more self-aware is a learned skill. Studies show that a self-aware healthcare professional is essential for developing the therapeutic healthcare professional-patient relationship that is needed (Rasheed et al., 2019). To become more self-aware, the healthcare professional can think back and reflect on the situation; talk out the experience with a trusted mentor or colleague; and focus on the positives and learn from the negatives of the experience.

HOLISTIC CONSIDERATIONS

Transcranial magnetic stimulation is a new noninvasive treatment for major depressive disorders that is the choice for patients who have not responded to the usual medications (Dubin et al., 2016). An alternative to medication, this treatment is considered safe, well tolerated, and effective (Mayo Clinic, 2018d). Magnetic fields are created around the brain with an electromagnetic coil placed against the forehead. There is no pain or seizures with this procedure though the patient may experience slight discomfort. Parts of the brain that are influenced by depression are activated, and the depressive mood lifts for the patient (Janicak & Dokucu, 2015). The procedure takes about 40 minutes and is often repeated every few weeks until depression symptoms are reduced.

Transcranial magnetic stimulation should not be confused with ECT, which involves anesthesia and the induction of a seizure with electricity and results in changes in brain functioning and chemistry. ECT is still used across the United States for severe depression (NIMH, 2019).

Case study 7

Mary Lincoln is a 47-year-old female patient who was admitted to a surgical unit of a general hospital for removal of an ovarian cyst. The procedure went well, and Mary is doing fine medically. She appears to be free from pain and is recovering well.

The evening healthcare professional who is taking care of Mary notes that she seems depressed. The healthcare professional observes that Mary has a sad mood and appears helpless or extremely lethargic when performing everyday tasks such as opening her juice or using the washcloth to clean her face.

On Mary's recorded psychosocial assessment, the healthcare professional learns that Mary and her husband divorced last year. Her second child, a daughter, has moved out of state within the past 2 months to attend college, and her oldest child, a son, is married and living 1,000 miles away.

When the healthcare professional inquiries about Mary's mood, Mary admits that she has felt somewhat sad for at least a month, has had frequent crying spells, has had a poor appetite, and has been more tired than usual. She claims that she falls asleep easily at about 11:00 p.m. each night at home but finds herself wide awake at 2:00 a.m., unable to return to sleep and feeling quite dreadful.

Mary says she knows that she should be feeling happy and excited; her surgery was successful, and she recently learned that her son and his wife are going to have a baby. She verbalizes that she cannot understand what is wrong with her because she is really looking forward to becoming a grandmother. Mary does confide that she would have liked to share the grandparenting experience with her ex-husband and wishes that her son lived closer to her.

Self-Assessment Quiz Question #9

The healthcare professional should be aware that depression is:

a. Usually a call for attention.
b. Underdiagnosed.
c. Related to an unhappy event.
d. Triggered by other depressed people.

Self-Assessment Quiz Question #10

This patient will likely be diagnosed with

a. Bipolar disorder.
b. Anxiety.
c. Depression and anxiety.
d. Depression.

Conclusion

This course has covered the levels of anxiety and depressive disorders, physiological reactions to them, specific medical and healthcare diagnoses that are appropriate, and possible healthcare options. Because healthcare professionals spend so much time with patients, they are in a strategically important position for assessing the patients' mood. Patients who have a mood disorder are seen regularly in the general hospital setting. Healthcare professionals can take the necessary steps to ensure that patients receive appropriate treatment for psychiatric and mental health conditions while in the hospital and after discharge. Being able to successfully intervene and curb a patient's escalating anxiety or help manage a patient's depressive disorder is a necessary skill for all healthcare professionals, in all specialties.

Glossary of terms

Anxiety: An unpleasant feeling of dread and apprehension. It may be caused by an unconscious conflict between an underlying drive and the reality of the environment, or it may be precipitated by a physical illness or a stressful situation. Patients who are anxious are often unaware of the specific cause of their feelings (Mayo Clinic, 2020).

Fear: A distressing emotion aroused by impending danger, evil, pain, and so on, whether the threat is real or imagined; the feeling or condition of being afraid. Fear is an unpleasant feeling caused by the realization and recognition that some event, occurrence, or other detectable source in the environment may bring harm.

Stress: The natural occurrence of wear and tear on the body as it responds and adapts to life's events. Classically described by Selye (1976), stress is generally recognized as a complex phenomenon. Accordingly, the understanding of stress must emphasize the relationship between the person and environment, the situation and the person's physiological state, and the current event and the person's history of stress and coping. To some extent, stress is a very individual experience: Something that is stressful for one person might be only mildly irritating to another. Likewise, responses to stress vary from one individual to another.

Coping mechanisms: Those behaviors that serve to reduce an individual's anxiety. They may be helpful or not, adaptive, or maladaptive. Healthcare professionals and other healthcare providers can teach patients to find healthy coping strategies (Halter, 2018; Townsend & Morgan, 2017; Riley, 2020).

Crisis: An internal disturbance that results from a stressful event or hazardous situation or a perceived threat to oneself. During times of crisis, the patient's usual coping mechanisms may become ineffective. At this point, a patient is more receptive to therapeutic influence and can often learn new coping mechanisms. Fortunately, a crisis is a time-limited event (Halter, 2018; Townsend & Morgan, 2017).

References

- American Academy of Child and Adolescent Psychiatry. (2018). *Depression in children and teens.* https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Depressed-Child-004.aspx
- American Healthcare professionals Association, American Psychiatric Healthcare professionals Association, & International Society of Psychiatric-Mental Healthcare professionals. (2014). *Psychiatric-mental healthcare: Scope & standards of practice* (2nd ed.).
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.).
- American Psychoanalytic Association. (n.d.). *Psychoanalytic psychotherapy.* http://www.apsa.org/content/psychoanalytic-psychotherapy
- American Psychological Association. (2016). *Beyond worry: How psychologists help with anxiety disorders.* https://www.apa.org/topics/anxiety-disorders
- American Psychological Association. (2019). *Mental health issues increased significantly in young adults over last decade.* https://www.apa.org/news/press/releases/2019/03/mental-health-adults
- American Psychological Association. (2020). *Postpartum depression.* https://www.apa.org/pi/women/resources/reports/postpartum-depression
- Anxiety and Depression Association of America. (2016). *Understand the facts.* https://www.adaa.org/understanding-anxiety
- Brown, R. I., Skelly, N., & Chew-Graham, C. A. (2019). Online health research and health anxiety: A systematic review and conceptual integration. *Clinical Psychology: Science and Practice,* e12299. https://doi.org/10.1111/cpsp.12299
- Centers for Disease Control and Prevention. (2016a). *Children's mental health. Anxiety and depression in children.* https://www.cdc.gov/childrensmentalhealth/depression.html
- Centers for Disease Control and Prevention. (2016b). *National Ambulatory Medical Care Survey.* https://www.cdc.gov/nchs/data/ahcd/namcs_summary/2016_namcs_web_tables.pdf
- Centers for Disease Control and Prevention. (2016c). *Reproductive health: Depression during and after pregnancy.* https://www.cdc.gov/features/maternal-depression/index.html
- Centers for Disease Control and Prevention. (2019). *Depression Statistics.* https://www.cdc.gov/nchs/fastats/depression.htm
- Child Stats .gov. (2020). *America's children in brief: Key national indicators of well-being, 2020.* https://www.childstats.gov/americaschildren/index.asp
- Depression and Bipolar Support Alliance. (2020). *About mood disorders.* https://www.dbsalliance.org/education/
- Deschênes, S. S., Burns, R. J., & Schmitz, N. (2015). Associations between depression, chronic physical health conditions, and disability in a community sample: A focus on the persistence of depression. *Journal of Affective Disorders, 179,* 6-13. http://dx.doi.org/10.1016/j.jad.2015.03.020
- *Levels of Anxiety.* (2021, March 18). The Recovery Village Drug and Alcohol Rehab. https://www.therecoveryvillage.com/mental-health/anxiety/related/levels-of-anxiety/
- Dubin, M. J., Mao, X., Banerjee, S., Goodman, Z., Lapidus, K. B., Kang, G., Liston, C., & Shungu, D. C. (2016). Elevated prefrontal cortex GABA in patients with major depressive disorder after TMS treatment measured with proton magnetic resonance spectroscopy. *Journal of Psychiatry & Neuroscience, 41*(3), E37-E45.
- Halter, M. J. (2018). *Varcarolis' foundations of psychiatric mental healthcare: A clinical approach* (8th ed). Elsevier.
- Harvard Business Review. *Anxiety Is Contagious. Here's How to Contain It.* (2021). HBR. https://hbr.org/2020/03/anxiety-is-contagious-heres-how-to-contain-it
- Herdman, T H. & Kamitsuru, S. (eds.). (2018) *NANDA International healthcare diagnoses: definitions and classification 2018-2020* (11th ed). Thieme.
- Hubbard, A. A., McEvoy, P. M., Smith, L., & Kane, R. T. (2016). Brief group psychoeducation for caregivers of individuals with bipolar disorder: A randomized controlled trial. *Journal of Affective Disorders, 200,* 31-36. https://doi.org/10.1016/j.jad.2016.04.013
- International Society of Psychiatric-Mental Healthcare professionals. (2020). *Mission and practices.* https:/www.ispn-psych.org/about-ispn
- Jameson, J. L. (2016). Principles of endocrinology. In J. L. Jameson, L. J. De Groot, D. M. de Kretser, L. C. Giudice, A. B. Grossman, S. Melmed, John T. Potts, Jr., & G. C. Weir (Eds.), *Endocrinology: Adult and pediatric* (7th ed., pp. 3-16). Elsevier.
- Janicak, P. G., & Dokucu, M. E. (2015). Transcranial magnetic stimulation for the treatment of major depression. *Neuropsychiatric Disease and Treatment, 11,* 1549-1560. http://doi.org/10.2147/NDT.S67477
- Kempton, M. M. J., PhD. (2011). *Structural Neuroimaging Studies in Major Depressive Disorder: Meta-analysis and Comparison With Bipolar.* Jama Network. https://jamanetwork.com/journals/jamapsychiatry/fullarticle/1107416
- Kyoung, K. W., Dayeon, S., & Won O. S. (2015). Depression and its comorbid conditions more serious in women than in men in the United States. *Journal of Women's Health, 24,* 978-985. https://doi.org/10.1089/jwh.2014.4919
- Lindgren, V., McNicholl, L., Friesen, M. A., Barnett, S., & Collins, F. (2019). Effects of aromatherapy on pain and anxiety scores in adult patients admitted to a community hospital on the medical unit or telemetry unit. *Holistic Healthcare Practice, 33*(6), 346-353. https://doi.org/10.1097/HNP.0000000000000352
- Liu, J. J., Wei Y. B., Strawbridge, R., Bai, Y. Change, S. Shi, L., Que, J., Gasdad, B. S., Tivedi, M. H., Kelsoe, J. R., & Lu, L. (2020). Peripheral cytokine levels and response to antidepressant treatment in depression: a systematic review and meta-analysis. *Molecular Psychiatry 25,* 339–350 (2020). https://doi.org/10.1038/s41380-019-0474-5
- Mayo Clinic. (2018a). *Bipolar disorder.* http://www.mayoclinic.org/diseases-conditions/bipolar-disorder/basics/definition/con-20027544
- Mayo Clinic. (2018b). *Depression (major depressive disorder).* http://www.mayoclinic.org/diseases-conditions/depression/basics/definition/con-20032977
- Mayo Clinic. (2018c). *Mood disorders.* http://www.mayoclinic.org/diseases-conditions/mood-disorders/basics/definition/con-20035907
- Mayo Clinic. (2018d). *Transcranial magnetic stimulation.* http://www.mayoclinic.org/tests-procedures/transcranial-magnetic-stimulation/home/ovc-20163795
- Mayo Clinic. (2020). *Anxiety disorders: Overview.* http://www.mayoclinic.org/diseases-conditions/anxiety/home/ovc-20168121
- Mental Health America. (2017). *Depression in older adults: More facts.* http://www.mentalhealthamerica.net/conditions/depression-older-adults-more-facts
- National Center for Complementary and Integrative Health. (2016). *Anxiety at a glance.* https://nccih.nih.gov/health/anxiety
- National Center for Complementary and Integrative Health. (2017). *Relaxation techniques for health.* https://nccih.nih.gov/health/stress/relaxation.htm
- National Institute of Mental Health. (2016). *Depression basics.* https://www.nimh.nih.gov/health/publications/depression/index.shtml#pub5
- National Institute of Mental Health. (2017). *Bipolar disorder: prevalence of bipolar among adults.* https://www.nimh.nih.gov/health/statistics/prevalence/bipolar-disorder-among-adults.shtml
- National Institute of Mental Health. (2019). *Major depression: prevalence of major depressive episodes among adults.* https://www.nimh.nih.gov/health/statistics/prevalence/major-depression-among-adults.shtml
- National Institute of Mental Health. (2020). *Bipolar disorder.* https://www.nimh.nih.gov/health/topics/bipolar-disorder/index.shtml
- National Institute of Mental Health. (2021). *Suicide Rates.* https://www.nimh.nih.gov/health/statistics/suicide.shtml#part_154968
- National Institute of Mental Health. (2021). *Depression.* https://www.nimh.nih.gov/health/publications/depression/?NIMH+symptoms+of+depression=
- Ogden, C. L., Carroll, M. D., Lawman, H. G., Fryer, C. D., Kruszon-Moran, D., Kit, B. K., & Flegal, K. M. (2016). Trends in obesity prevalence among children and adolescents in the United States, 1988-1994 through 2013-2014. *Journal of the American Medical Association, 315*(21), 2292-2299. https://doi.org/10.1001/jama.2016.6361
- Osimo, F. O., Baxter, L. J., Lewis, G., & Jones, P. B. (2019). Prevalence of low-grade inflammation in depression: A systematic review and meta-analysis of CRP levels. *Psychological Medicine, 49*(12), 1958-1970.
- Rasheed, S. P., Younas, A., & Sundus, A. (2019). Self-awareness in healthcare: A scoping review. *Journal of Clinical Healthcare, 28*(5-6):762-774. https://doi.org/10.1111/jocn.14708
- Riley, J. B. (2020) Communication in Healthcare (9th ed.) St. Louis: Elsevier
- Selye, H. (1976). *The stress of life* (rev. ed.). McGraw-Hill.
- Substance Abuse and Mental Health Services Administration. (2020). *NSDUH 2018 data collection final report.* https://www.samhsa.gov/data/report/nsduh-2018-data-collection-final-report
- Tolkien, K., Bradburn, S., & Murgatroyd, C. (2019). An anti-inflammatory diet as a potential intervention for depressive disorders: A systematic review and meta-analysis. *Clinical Nutrition, 38*(5), 2045-2052. https://doi.org/10.1016/j.clnu.2018.11.007
- Townsend, M., & Morgan, K. I. (2017). *Essentials of psychiatric mental healthcare: Concepts of care in evidence-based practice* (7th ed.). F. A. Davis.
- Townsend, M., & Morgan, K. I. (2017). *Essentials of psychiatric mental healthcare: Concepts of care in evidence-based practice* (7th ed.). F. A. Davis.
- VanderKruik, R., Barreix, M., Chou, D., Allen, T., Say, L. Cohen, L. S. (2017). The global prevalence of postpartum psychosis: a systematic review. *BMC Psychosis, 17*(272). https://doi.org/10.1186/s12888-017-1427-7
- Wheeler, K. (2017). Trauma, stressor-related, and dissociative disorders. In M. J. Halter (Ed.), *Varcarolis' foundations of psychiatric mental healthcare: A clinical approach* (7th ed., pp. 294-314). Elsevier
- Yuem, T., Maggiolo, N. S., Gupta, C. T., Davis, B. J., Nierenberg, A. A., & Sylvia, L. G. (201 Adjunctive nutrition therapy for

Self-Assessment Answers and Rationales

1. The correct answer is A.
Rationale: This acknowledges Judy's concern about the interview and encourages her to talk more about it.

2. The correct answer is A.
Rationale: Judy is experiencing mild anxiety because of her upcoming interview. It is important to her, and she is excited about the possibilities of a new job that she thinks will be a great fit for her skills. She is alert and aware of her surroundings. She seems able to articulate her situation and think logically about her interview.

3. The correct answer is D.
Rationale: There is probably no anxiety attached to the in-service testing because there is nothing required of the healthcare professionals other than to go and sit in the room and fill out the testing form.

4. The correct answer is A.
Rationale: Mild anxiety creates the best learning environment. If any of the other levels of anxiety are present, the person cannot absorb new information as effectively.

5. The correct answer is C.
Rationale: Roberto is experiencing severe anxiety. He is focused only on his pain and has become verbally combative.

6. The correct answer is C.
Rationale: Being self-aware of one's feelings and behaviors is part of self-care. The American Holistic Healthcare Professionals Association recognizes self-care as essential to effective healthcare practice.

7. The correct answer is D.
Rationale: Antipsychotic medications are generally not part of medication protocols for patients with bipolar disorders. Education for this family should be centered on recognizing early warnings for mania and possible triggers and the importance of continuing to take the medication. In a manic phase, patients believe they feel great and often discontinue medications. The family needs to understand that this is a biological disorder, as they may believe this is only a behavioral issue. Gluten-free diet is unrelated.

8. The correct answer is C.
Rationale: The healthcare professional should consider referring the family to a support group and other resources in the community and online. The family does not need to be told how Jackson's behavior is. Stopping treatment is not recommended without some sort of follow-up. Jackson may need help even though he is considered an adult at 19 and the family is an excellent resource.

9. The correct answer is B.
Rationale: Many people are not yet diagnosed with depression but have all the symptoms. The Beck Depression Inventory is a quick checklist that anyone can use to check for symptoms, and it is often part of intake for hospital admissions.

10. The correct answer is D.
Rationale: More than likely, Mary is experiencing depression. She reports typical signs and symptoms (i.e., sad mood, feeling helpless and lethargic), and her situation, with multiple experiences of loss, would be one that might lead to depression. Asking about previous episodes of depression or similar symptoms and whether she has a history of depression, as well as her response to the symptoms and treatment, if any, would be helpful in creating a plan of care for Mary.

Using Evidence in Clinical Nursing Practice, 2nd Edition

3 Contact Hours

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Faculty

Robin McCormick, DNP, MSN, RN, is a registered nurse with a research background focused on vulnerable populations, maternal-child outcomes, and adult health. She has clinical nursing experience working in medical-surgical nursing and critical care and spent many years as a hospital-based educator implementing evidence-based practice in clinical settings. She received a BSN from Troy University, an MSN from the University of South Alabama, and a Doctor of Nursing Practice from Troy University. She is the assistant ASN coordinator for Troy University, where she also works as an assistant professor, teaching concepts of evidence-based practice to undergraduate nursing students.

Robin McCormick has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Peer reviewer:
Brenda Williams, PhD, MBA, RN, is an RN with over 35 years' experience in multiple nursing areas. She holds an Executive MBA and has been involved in new start-ups, re-vamps, and old established businesses. Dr. Williams' PhD dissertation is a qualitative transcendental phenomenological study titled: "An Exploration of Bullied Nurses, Witnesses, and a Hospital's Bottom Line". Dr. Williams serves as a Research Chair for a DBA program at Indiana Wesleyan University and facilitates classes at the Bachelor and Master level at Ohio Christian University, in addition to writing curriculum. She also serves as a Subject Matter Expert (SME) for the American Association of Kidney Patients (AAKP).

Brenda Williams has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Course overview

Evidence-based practice (EBP) relies on scientific research findings to modify or develop policies and procedures that incorporate the latest evidence into clinical practice. The purpose of this course is to help nurses incorporate nursing research findings into their practice for the maximum benefit of patients and the facilitation of professional growth and development.

Learning objectives

After completing this course, the learner will be able to:

- Apply nursing research methods and evidence-based practice (EBP) to nursing practice.
- Choose appropriate EBP models for the implementation of EBP.
- Employ concepts of nursing research when implementing EBP.
- Design an EBP project based on the nursing research process.
- Discuss how to translate evidence into practice.
- Identify barriers to implementing EBP and strategies to reduce them.
- Describe the staff nurse's role in promoting EBP and research.

How to receive credit

- Read the entire course online or in print which requires a 3-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal information and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion.

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Activity director

June D. Thompson, DrPH, MSN, RN, FAEN, Lead Nurse Planner

Disclosures

Resolution of conflict of interest
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Course verification

All individuals involved have disclosed that they have no significant financial or other conflicts of interest pertaining to this course. Likewise, and in compliance with California Assembly Bill No. 241, every reasonable effort has been made to ensure that the content in this course is balanced and unbiased.

INTRODUCTION

The following three situations describe practice scenarios in which the use of evidence-based practice (EBP) could make a significant contribution to safe, effective patient care.

Scenario 1
Maria is the surgical intensive care unit (ICU) representative to the Nursing Research Council. She proposes the design of a research study that focuses on the correlation between nursing burnout and patient outcomes. Maria and her colleagues believe that if they are required to take 30-minute meal breaks, with two 15-minute rest breaks off the nursing unit each shift, the hospital should provide a nurse to cover these breaks. By doing so, patient care would be more efficient and effective and patient outcomes would improve. They want to determine if there is evidence to justify these beliefs. They also agree to abide by the evidence obtained from a review of the literature and a well-designed nursing research project.

Scenario 2
Aaliyah is a nurse practitioner who works in a neurological rehabilitation center. Many of her patients are dealing with the effects of a stroke. One of the center's physiatrists (specialists in physical medicine and rehabilitation) recently published an article in a medical journal contradicting the center's protocol for bladder retraining in stroke patients. The article is based primarily on his personal preferences and not on scientific research findings. This physician has considerable power in the community and expects the rehabilitation center leaders to support his decisions and comply with his requests.

Even though patient outcomes about bladder retraining have been excellent, the center's administrators encourage the rehabilitation team to consider changing the protocol based on this physician's opinions, not on available evidence. Aaliyah, a nursing department representative on the Evidence-Based Practice Council, has been asked to respond to administrative concerns. Aaliyah is asking for the council's support in gathering evidence to justify the current practice.

Scenario 3
Various nursing councils are being established as part of a community medical center's pursuit of Magnet accreditation. The councils include nursing research and evidence-based nursing practice councils. The formation of these councils has triggered both enthusiasm and resistance. Many nurses look forward to having more input into nursing practice within their organization. They want to participate in research that helps, not only to facilitate EBP, but also to improve nursing practice and enhance patient outcomes.

Some nurses, however, are not as eager to participate in research and formalized EBP. They are concerned about learning about the nursing research process and fear that formalizing EBP will create more work without enhancing practice. They also question if the amount of time and effort necessary to achieve and maintain Magnet accreditation is worthwhile. They state

that nursing turnover and staffing shortages are too high to be able to work on improving practice when the nurses are already experiencing high rates of burnout.

* * * * *

These three scenarios illustrate some of the strengths of EBP and some of the barriers to its implementation. Scenario 1 shows how research is necessary to the implementation of EBP. Maria and her colleagues ponder a change in a protocol they hope will ultimately enhance patient outcomes. They do not request or attempt to initiate such a change without objective evidence to support their beliefs. Such evidence is obtained from a review of relevant studies in the healthcare literature and well-designed nursing research projects. Note that Maria and her colleagues agree to abide by objective findings. One of the hallmarks of EBP is that its practitioners support the concept to improve patient outcomes.

Scenario 2 is a bit more complicated and moves into an area where nurses and other healthcare professionals are all too familiar. In this scenario, an influential physician is proposing protocol changes without the benefit of objective evidence. Physicians are not the only persons who can wield influence.

Any member of the healthcare team may use influence to control, or attempt to control, healthcare practices. In this scenario, a nurse practitioner is seeking help to gather evidence to determine which is the best approach to bladder re-training. However, additional actions may be necessary. It may be helpful to talk to the physician about concerns regarding the current protocol and why his proposed changes would be beneficial. It may also be essential to find evidence to support the physician's viewpoint. Findings may indicate the need for further investigation, including a literature review and more research. It is crucial to keep an open mind about new or different ideas. Another hallmark of EBP is the willingness to continually evaluate practice inpatient outcomes.

Scenario 3 describes one of the barriers to implementing EBP (and to nursing research). The establishment of nursing councils that focus on EBP and nursing research necessitates changes in practice. As the scenario describes, these changes can trigger both enthusiasm and resistance, typical responses to change. There will be those who embrace change as an opportunity for career advancement and those who resist it. Why is there so much resistance to change, even when it is designed to improve patient outcomes? Fear of the unknown, concern that the change will increase workload, high levels of burnout, and apprehension about acquiring the skills and knowledge necessary to adhere to EBP and promote nursing research contribute to dissatisfaction and resistance.

EBP is no longer a new initiative. It is the foundation of nursing practice. This education program provides information about the EBP process, the nursing research process, and how to implement an EBP nursing practice successfully.

DEFINITION OF TERMS

Nurses use research as a scientific basis for nursing practice. An increasing number of research studies have been conducted to translate evidence effectively into practice (Chein, 2019).

Evidenced-based care promotes quality health outcomes for individuals, families, communities, and healthcare. Research and EBP are intertwined. For nurses to conduct nursing research and use findings to establish EBP, they must first know terms related to both research and EBP.

Nursing research

Nursing research is a systematic, rigorous, critical investigation conducted for answering questions regarding nursing phenomena. Nursing research follows the steps of scientific inquiry (Polit & Beck, 2022).

Quantitative research

Quantitative, or empirical, research is a structured way of collecting and analyzing data to investigate research questions or hypotheses that describe phenomena, evaluate relationships, determine differences, and explain cause-and-effect relationships between variables and evaluate the effectiveness of interventions. Quantitative research uses computational, statistical, and mathematical tools to obtain results (Melnyk & Fineout-Overholt, 2019; Polit & Beck, 2022).

There are four approaches to quantitative research (Center for Innovation in Research and Teaching, n.d; Melnyk & Fineout-Overholt, 2019):

1. Descriptive design.
2. Correlational design.
3. Quasi-experimental design.
4. Experimental design.

Descriptive design
This type of quantitative research is performed to describe the status of a variable (a measurable characteristic that varies) or phenomenon. The research does not start with a hypothesis, but one is formulated after data collection. Data collection is typically observational. An example of this type of research is a description of men's attitudes towards male contraception interventions.

Correlational design
A correlational design explores relationships between variables by using statistical analysis. It does not look for cause and effect. The data collection process is primarily observational. An example of correlational design is a study of the relationship between verbal abuse and clinical depression.

Quasi-experimental design (causal-comparative)
This form of quantitative research is designed to identify a cause-effect relationship between two or more variables. Control groups are identified and exposed to a variable. Results are compared to groups not exposed to the variable. An example of this type of research is a study of the development of compassion and emotional intelligence in nursing students (Teskereci et al., 2021).

Experimental design (true experimentation)
The experimental design uses the scientific method to establish a cause-and-effect relationship among a group of variables. The researchers try to control all variables except the variable that is being manipulated (independent variable). An example of experimental design is a study of

efficacy of the treatment with dapagliflozin and metformin compared to metformin monotherapy for weight loss in patients with class III obesity (Ferreira-Hermosillo, 2020).

Qualitative research

Qualitative research is conducted if the question to be addressed is regarding a better understanding of the meaning of a human experience, such as grief or hope. Qualitative research is discovery-oriented and uses words and descriptions, not numbers, to discover or explain phenomena (Polit & Beck, 2022).

The following are types of qualitative research (Polit & Beck, 2022; Rashid, et al., 2019):

- **Ethnography**: Ethnography entails describing and interpreting a culture (the way a group of people lives) and behaviors associated with a particular culture according to values and norms. An example of ethnography in healthcare

is using an ethnographic approach to study newly licensed nurses' experience caring for patients with Coronavirus Disease 2020.

- **Phenomenology**: Phenomenology is used to describe and understand everyday life experiences. Phenomenology researchers investigate subjective phenomena obtained through in-depth conversations with research participants. The sample size is generally small, often ten people or fewer. Data are reported as vivid, detailed, in-depth descriptions organized into key themes. The overall goal is to help readers enrich their understanding of specific life experiences. An example of a phenomenology study in healthcare is the experiences of parents living with terminally-ill children.
- **Grounded theory**: Grounded theory is conducted to comprehend the social and psychological processes that characterize an event or a situation. The grounded theory tries to explain people's actions from the perspectives of those involved in the event or situation. An example of a grounded theory research project is to explore new graduates' perceptions of workplace readiness when entering nursing practice in an Intensive Care Unit.
- **Case study**: A case study is an in-depth study of a single case example or a minimal number of cases. An individual, a family, or another type of social unit may be the focus of the study. A case study focuses on understanding why an individual thinks, behaves, or progresses in a particular way. An example of a case study is a focus on how several nurses interact with a female patient who was diagnosed with terminal breast cancer.
- **Critical theory**: A critical theory researcher is concerned with a critique of society. Researchers conducting a critical theory study hope to identify ways to improve society. Thus, it is action oriented. Critical theory aims to "make people aware of contradictions and disparities in social practices and become inspired to change them" (Polit & Beck, 2022, p. 169). An example of a critical theory study is to follow patients whose income is below the poverty line and determine their ability to adhere to medication regimens. Findings would be disseminated in a way that fosters awareness of problems and stimulates action to correct them.
- **Feminist theory**: Feminist theory is similar to critical theory. The focus, however, is on "gender domination and discrimination within patriarchal societies" (Polit & Beck, 2022, p. 169). Researchers conduct research that helps to facilitate an end to women's unequal position in society compared to men's position.
- **Participatory action research**: Participatory action research is focused on researchers and participants working together to understand a problematic situation and change it for the better. The goal is to "produce not only knowledge but also action, empowerment, and consciousness raising" (Polit & Beck, 2022, p. 170). An example of this type of research is developing a community plan to tackle maternal and neonatal health problems in rural West Virginia.

Self-Assessment Quiz Question #1

A nurse wants to research the experience of grief in parents who have lost a child to cancer. This type of research is:

a. Quantitative.
b. Critical Appraisal.
c. Qualitative.
d. Quality Improvement.

EVIDENCE-BASED PRACTICE (EBP)

EBP is the process of collecting, evaluating, and integrating valid research evidence (combined with clinical expertise and knowledge of patient and family values, preferences, and beliefs) to improve clinical practice, the work environment, or patient outcomes. EBP aims to close the gap between what is known to be effective and what is being done in healthcare settings (Polit & Beck, 2022).

Quality improvement

Quality improvement (QI) is the formal, systematic data analysis for monitoring and improving patient care. QI uses currently available knowledge and evidence to improve patient outcomes, enhance the safety of healthcare systems, and improve job performance (Melnyk & Fineout-Overholt, 2019; Polit & Beck, 2022).

Critical appraisal

Critical appraisal involves evaluating the strengths and weaknesses of research evidence by using existing standards to identify the merit and validity of the research for use in clinical practice. *Critical appraisal* is also known as a research or evidence critique (Melnyk & Fineout-Overholt, 2019; Polit & Beck, 2022).

Validity

Validity is the extent to which assumptions made in a research study are accurate and well-founded. When validity is used to describe a research tool, it means the extent to which that tool measures what it was intended to measure (Melnyk & Fineout-Overholt, 2019; Polit & Beck, 2022).

Reliability

Reliability refers to the extent to which a measurement is free from measurement error. In other words, it is the extent to which study results are the same for repeated measurements. It refers to the ability to count on research findings to make a difference when clinicians apply them to practice (Melnyk & Fineout-Overholt, 2019; Polit & Beck, 2022).

Nursing consideration: Nurses must be able to appraise the steps of the research process, read the research literature critically, and make informed clinical decisions based on the validity and reliability of research findings to successfully and knowledgeably implement EBP (Polit & Beck, 2022).

Self-Assessment Quiz Question #2

The formal, systematic analysis of data for monitoring patient outcomes is:

a. Quality improvement.
b. Quantitative research.
c. Qualitative research.
d. EBP.

Using models to implement EBP in nursing

EBP in nursing is a problem-solving approach to clinical decision-making in healthcare settings. It depends on three components (Newhouse et Al., 2007):

1. The best available scientific research evidence.
2. The best available clinical expertise.
3. Patient and family values and preferences.

To successfully implement EBP, nurses must consider both internal and external influences on practice. For example, internal influences might be the support of nurse managers who provide adequate staffing levels to initiate nursing research. External factors might be health-related community issues, such as an influenza epidemic or a significant trauma event requiring immediate care for numerous victims. All factors that impact a community and its healthcare facilities affect EBP (Melnyk & Fineout-Overholt, 2019).

To date, several EBP models serve as frameworks to guide the translation of evidence into practice. The following are examples of EBP models.

The Johns Hopkins Nursing Evidence-Based Practice Model
The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) model is dedicated to the advancement of EBP and to the support of nurses who work to improve patient care outcomes by translating evidence into practice (Dang et al., 2022).

The revised JHNEBP model is composed of three interrelated components (Dang et al., 2022):

1. **Inquiry** launches the EBP process. The inquiry focuses on the efforts of the nurse to question, examine, and collect information about a problem, issue, or concern.
2. **Practice** reflects the translation of what nurses know into what they do. Practice is the range of nursing activities that define patient care.
3. **Learning** involves both the individual as a learner and the organization as a learning culture. A learning culture not only improves learning but also increases employee satisfaction, promotes creativity, and encourages problem-solving.

Implementation of the JHNEBP model is a 20-step process that occurs in three phases, described by the acronym **PET** (Dang et Al., 2022):

1. **P**ractice question.
2. **E**vidence.
3. **T**ranslation.

Practice question
The first phase involves the practice question. The practice question identifies an answerable question regarding a practice issue or concern that needs to be addressed. Nurses must consider how the topic under discussion correlates with organizational and departmental goals and priorities when formulating the question. Such correlation is essential if nurses expect to obtain the support of the organization's leadership (Dang et al., 2022; Melnyk & Fineout-Overholt, 2019).

Evidence
Evidence, the second phase, addresses the "search for, appraisal of, and synthesis of best available evidence. Based on these results, the team makes recommendations regarding practice changes" (Dang et al., 2022).

Translation
During the third phase, translation, it is determined whether changes to practice are feasible, appropriate, and a good fit for the organizational setting. If so, an action plan is created, implemented, and evaluated. The results are communicated to appropriate persons within and outside of the organization (Dang et al., 2022).

The Iowa Model of Evidence-Based Practice
The Iowa Model of Evidence-Based Practice focuses on guiding clinicians at all levels of practice through a team-based, multiphase process according to the following phases (Iowa Model Collaborative, 2017):

- Identify triggers, issues, or opportunities.
- State the question or purpose.
- Interprofessional team formation.
- Evidence review, critique, and synthesis.
- Change implementation through piloting.
- Identify and sustain practice change.
- Outcome dissemination.

The Iowa model identifies the following "triggers" for an EBP endeavor (Melnyk & Fineout-Overholt, 2019):

- Clinical or patient-identified issue.
- Organization, state, or national initiative.
- Data or new evidence.
- Accrediting agency requirements and regulations.
- Philosophy of care.

These triggers activate paths that include decision points with evaluative feedback loops when identifying and implementing practice changes.

The Stetler model
The Stetler model was initially developed to focus on research utilization. The model has been updated and refined to fit into the EBP paradigm, emphasizing helping nurses assess how research findings can help guide and improve clinical practice. The focus is on practitioner expertise, context, and evidence, as well as on the translation of evidence into practice (Melnyk & Fineout-Overholt, 2019; National Collaborating Centre for Methods and Tools, n.d.).

The Stetler model consists of the following five phases (Melnyk & Fineout-Overholt, 2019; National Collaborating Centre for Methods and Tools, n.d.):

1. **Preparation** includes purpose, relative assessment, and the search for sources of evidence.
2. **Validation** of evidence involves validating evidence found in sources, such as the subject literature and quality improvement data.
3. **Comparative evaluation/decision making** involves critiquing, synthesizing, and deciding to use the evidence while considering internal factors, such as organizational practices and expertise of individual EBP clinicians, and external factors, such as research protocols and organizational standards.
4. **Refinements** guide the translation of evidence into clinical practice.
5. **Evaluation** involves assessing the impact of change, including outcomes met and the degree to which the practice change was implemented.

Star Model of Knowledge Transformation
The Star Model of Knowledge Transformation depicts the relationship between different stages of knowledge as newly discovered knowledge is moved into practice (School of Nursing UT Health Science Center San Antonio, 2015).

The five stages of the model are referred to as *star points* (School of Nursing UT Health Science Center San Antonio, 2015):

- **Star Point 1: Discovery research**: Star Point 1 is the knowledge-generating stage. New knowledge is discovered through scientific inquiry and traditional research investigations.
- **Star Point 2: Evidence summary**: Evidence summary is also a knowledge-generating stage during which research knowledge is synthesized into a single meaningful statement of the state of the science. The evidence summary reduces large amounts of information into a manageable format.
- **Star Point 3: Translation to guidelines**: Transformation requires translating evidence into practice recommendations and integrating these recommendations into practice. The goal of translation is to provide useful and relevant summarized evidence for clinicians and clients.
- **Star Point 4: Practice integration**: Practice Integration involves changing individual and organizational practices through formal and informal methods. Important concepts addressed in this stage are factors that impact the individual and organizational rate of implementing changes in practice.
- **Star Point 5: Outcome evaluation**: Outcome evaluation is the final stage in knowledge transformation. Factors to be evaluated are the impact of EBP on patient health outcomes, provider and patient satisfaction, efficacy, efficiency, economic analysis, and health status impact. As new knowledge progresses through the five stages, the final desired outcome is evidence-based quality improvement of healthcare.

Advancing Research and Clinical Practice Through Close Collaboration (ARCC) model
The ARCC model was developed to provide healthcare organizations with an organized conceptual framework for guiding systemwide implementation and sustaining EBP. The ultimate goal is to facilitate the achievement of quality outcomes.

The ARCC model emphasizes sustainability throughout the organization and consists of the following five steps (Melnyk & Fineout-Overholt, 2019):

1. Assessment of the organizational culture and preparedness to implement practice changes.
2. Identification of organizational strengths as well as barriers to implementation of the EBP.
3. Identification of EBP mentors.
4. Implementation of the evidence into organizational practice.
5. Evaluation of outcomes because of practice change.

Nursing consideration: The ARCC model emphasizes the importance of mentors and EBP for organizational effectiveness. Nurses who use this model of EBP must be willing to work with mentors and incorporate organizational culture as part of practice change (Melnyk & Fineout-Overholt, 2019).

Promoting Action on Research Implementation in Health Services Framework (PARiHS)

The PARiHS framework is often used as an "organizing or conceptual framework to help both explain and predict why the implementation of evidence into practice is or is not successful" (Harvey & Kitson, 2016).

The PARiHS framework emphasizes the need for appropriate facilitators trained in implementing the framework. Effective facilitation increases the likelihood of successful implementation (Harvey & Kitson, 2016).

The PARiHS framework was developed and revised over several years by several authors. The framework consists of several vital constructs (Harvey & Kitson, 2016; Melnyk & Fineout-Overholt, 2019).

The first element is evidence, constituting sources of knowledge obtained from various resources. When assessing the evidence, factors to be assessed include research, clinical experience, patient experience, and local data. The second element is ***context***, which refers to the characteristics of the setting in which PARiHS is implemented. Under context, the culture of the setting, leadership's role, and how services are evaluated are examined. The third element is ***facilitation***. Facilitation is described as a way to help people change and acquire new knowledge and skills. Facilitators must understand their roles and purpose and have the necessary skills and attributes.

In summary, there are numerous models and frameworks for EBP. Organizations should choose one that best fits their respective philosophies, priorities, and goals. Successful implementation of EBP in nursing requires enthusiasm, commitment, and skill. Continuing education endeavors should include updates on EBP and how it impacts patient care and job performance.

Self-Assessment Quiz Question #3

The EBP model that focuses on problem-focused and knowledge-focused triggers to question nursing practice is:

a. Johns Hopkins Nursing Evidence-Based Practice model.
b. The Iowa Model of Evidence-Based Practice.
c. The Stetler model.
d. The Star Model of Knowledge Transformation.

Self-Assessment Quiz Question #4

As part of the implementation of EBP, the nursing department is assigning mentors to help nurses develop EBP skills. The model that overtly emphasizes the importance of mentors is:

a. ARCC.
b. PARiHS.
c. CStar Model of Knowledge Transformation.
d. The Iowa Model.

EBP impact on patient care and job performance

EBP is essential to the enhancement of quality and safety in healthcare. Without EBP, healthcare professionals do not implement patient care consistently. They are at risk for variations in care that could negatively impact patient outcomes (Kerr & Rainey, 2021).

Unfortunately, healthcare organizations across the United States continue to struggle with applying EBP. Organizational factors such as lack of time to find, appraise, implement, and evaluate evidence are key barriers to the EBP process, along with nurses lacking the authority to change care procedures in practice. Nurses in the clinical environment use organizational policies and protocols to guide best practices and tend to do it the way it was always done. Many nurses find it challenging to interpret research findings because of the jargon used in the statistical presentation of research results (Kerr & Rainey, 2021).

Experts suggest that to focus on EBP, organizations must take the following steps (Melnyk & Fineout-Overholt, 2019):

- Develop the right organizational culture.
- Provide continuing education regarding EBP.
- Encourage nurses to take the lead in EBP, promote the professional nursing practice, and focus on EBP.
- Adopt EBP models and frameworks.
- Promote an interprofessional approach.

The right organizational culture

The "right" culture identifies EBP as an organizational imperative. Organizational leadership must identify EBP as a top priority and provide the resources to educate all staff members in its implementation. Implementation of EBP should be part of employees' performance evaluations (Henry et al., 2017).

Ideally, EBP in nursing is a patient-centered, holistic approach to patient care. The organizational culture must support nurses' and other healthcare professionals' ability to utilize research to close the gap between theory and clinical practice. Effective implementation of EBP has been shown to decrease errors, injuries, and adverse patient outcomes (Melnyk & Fineout-Overholt, 2019).

Provide continuing education regarding EBP

Nurses make up the largest workforce in the US healthcare system. They practice in all types of healthcare settings, and nursing provides 24 hours per day patient care in inpatient and outpatient settings. Implementation of EBP relies on their ability and willingness to establish EBP environments.

A gap exists between education and practice. As part of undergraduate education, nursing students are exposed to EBP and taught that EBP is necessary for safe, quality patient care and job performance. After graduation, as they become part of the "real world" of licensed nursing practice, newly licensed nurses must deal with the culture of the organizations that employ them. Some cultures embrace EBP; others do not. Nurses must be competent in the implementation of EBP to promote its implementation. Such competency cannot be achieved and maintained without ongoing continuing education (Li et al., 2021).

Covid-19 has undoubtedly changed many aspects of nursing care and practice. Nurses do not practice by the same standards they did 15 years ago or even 3 years ago, in some instances (Duncan et al., 2021). Continuing education provides nurses with up-to-date information to apply to their practices to improve patient outcomes and professional job performance.

Demonstration of competency has been part of nursing performance evaluations for several years. Competency in EBP should be part of the job performance evaluation for all healthcare professionals. Competency cannot be attained without education, and education will not be effective unless nurses genuinely want to learn about and support EBP (Fu et al., 2020).

Any EBP competency must be aligned with the EBP process and be part of the ongoing evaluation of the nurse's job performance evaluation. The ultimate goal of EBP continuing education is to ensure that EBP is the standard of care delivered by healthcare professionals across the country and around the world (Melnyk & Fineout-Overholt, 2019).

EBP and professional nursing practice

As previously noted, nurses comprise the largest workforce in healthcare practice in the United States. Nurses should thus take the lead in promoting and implementing EBP (Melnyk & Fineout-Overholt, 2019).

The National Academies of Sciences, Engineering, and Medicine (the National Academies)—formerly known as the Institute of Medicine (IOM)—has consistently called on nurses to take on a more significant role in America's healthcare system (Wolters Kluwer, 2018).

In 2008, The Robert Wood Johnson Foundation (RWJF) and the National Academies launched a 2-year initiative to assess and facilitate the transformation of the nursing profession. The initiative has four key points (Wolters Kluwer, 2018):

- Nurses should practice to the full extent of their education and training.
- Nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression.
- Nurses should be full partners with physicians and other healthcare professionals in redesigning healthcare in the United States.
- Effective workforce planning and policymaking require better data collection and information infrastructure.

These goals correlate with the EBP initiatives. By using the scientific inquiry that forms the foundation of EBP, nurses can and should take leadership roles not only in EBP, but also in all aspects of the country's healthcare delivery systems.

Adopt EBP Models and Frameworks

EBP is often viewed as a theoretical concept that is difficult to apply in the "real world," making it challenging to promote and use. Adopting and implementing a model or framework of EBP throughout an organization can help apply evidence at the point of patient care. Implementation of EBP should also be part of organizational and departmental goals. By using models or frameworks and identifying EBP goals and objectives, clinicians and scholars can work together to use EBP to improve patient care delivery. The goals and objectives should also include clear expectations that EBP is an interdisciplinary approach to be conducted in a collaborative fashion, not as individual departmental strategies (Melnyk & Fineout-Overholt, 2019). For example, the intensive care unit employees may be working on an EBP goal to reduce the incidence of delirium development in their patient population. Employees from nursing, occupational therapy, physical therapy, pharmacy, clinical nutrition, and other departments would be involved in reducing delirium cases by working together as an interdisciplinary team.

Promote an interprofessional approach

Successful implementation of EBP requires a vibrant interdisciplinary team vision in conjunction with clear expectations (including goals and objectives) from organizational leaders that EBP is the basis of all delivered patient care. EBP should be an essential part of the organization's vision, mission, and values statements, as well as in the strategic plan. The organization should also make interprofessional continuing education regarding EBP a part of the orientation process and ongoing education for all employees (Melnyk & Fineout-Overholt, 2019).

The following are suggestions for implementing EBP.

When applying evidence (research findings) to clinical practice, nurses and their interdisciplinary colleagues should use a problem-solving approach to patient care (Melnyk & Fineout-Overholt, 2019):

- Ask a clinical question.
- Gather the latest and most relevant research to answer the question.
- Analyze the evidence.
- Incorporate personal clinical experience, patient's situation, available resources, and patient's preferences and values.
- Evaluate the results.
- Apply the evidence to the delivery of patient care.

Henry et. al (2019) developed a model for the swift implementation of EBP. Their model is called *Evidence Scanning for Clinical, Operational, and Practice Efficiencies* (E-SCOPE) and involves four steps:

1. Conduct quarterly evidence searches to identify newly published scientific evidence.
2. Decide which evidence-based practices to implement with input from the interdisciplinary team.
3. Support implementation of selected practices. Specific responsibility for implementation should be given to qualified individuals.
4. Monitor progress. The progress of implementation should be monitored and regularly evaluated, usually each quarter but more often if needed.

Experts in all fields emphasize the importance of applying EBP across the continuum of care. EBP must be established as the basis of healthcare in all settings and by all members of the interdisciplinary team.

NURSING RESEARCH

The language of critical appraisal and research

Before further discussing EBP and nursing research, it is necessary to define a few essential terms related to research. The following list is not all-inclusive, but it does provide a basis for discussions concerning EBP and nursing research:

- **Validity**: The extent to which assumptions made in a research study are accurate and well-founded. When validity is used to describe a research tool, it means the extent to which that tool measures what it is intended to measure (Polit & Beck, 2022).
- **Reliability**: The extent to which a measurement is free from measurement error. In other words, it is the extent to which study results are the same for repeated measurements (Polit & Beck, 2022).
- **Risk**: The probability of harm or injury (physical, psychological, social, or economic) as a result of participating in a research study (UCI Office of Research, 2019).
- **Outcome**: The conclusions investigators reach as the result of the research(Polit & Beck, 2022)

In addition to understanding the preceding concepts, nurses must be familiar with additional terms essential to the critical analysis of research articles. The following is a sampling of these terms (Polit & Beck, 2022):

- **Abstract**: A brief, comprehensive summary of a research study that appears at the beginning of an article.
- **Case study**: A research method that involves a thorough, in-depth assessment of an individual, group, or another social unit.
- **Cause and effect**: A relationship in which one event (the cause) makes another event happen (the effect).
- **Conceptual framework**: The structure of concepts or theories that serves as the foundation for a study.
- **Consent**: Permission given by a competent person to participate in a research study. *Consent* is also referred to as informed consent and is an ethical obligation of the researcher. The researcher must obtain voluntary informed consent from research participants after telling them

about both the potential benefits and the possible risks of participating in the study.
- **Control group**: A group in a research study that consists of participants who do not receive the treatment or intervention under investigation. The outcomes of participants in the control group are compared to those of the participants who receive the treatment or intervention under investigation to establish its effectiveness or ineffectiveness.
- **Double-blind study**: Neither the researchers nor the participants know the specific details of the experiment. This type of study is used to safeguard against experimental bias. An example of a double-blind study involves a medication trial where trial medications and placebos are administered. At the time of administration, neither group nor the investigators know which group received the placebo and which group received the medication.
- **Experimental research group**: A group of randomly selected participants from the research group who will receive the experimental treatment, medication, or variable.
- **Hypothesis**: An educated prediction about the relationship between two or more variables.
- **Mean**: The average score between two variables or scores. It is the arithmetic average of all scores.
- **Random selection**: A selection process in which each member of the identified population has an equal and independent chance of being included in the sample.
- **Randomization**: A method of choosing a sample in which each member of the population has an equal and independent chance of being selected to either the experimental group or the control group.
- **Risk**: The possible negative consequences of participation in a research study.
- **Sample**: A sample is a subset of a population that is used to represent an entire group.
- **Single-blind study**: A study in which the researchers know specific details of the study, but the participants do not.
- **Theoretical framework**: The theoretical rationale for the hypothesis. It serves as the structure that supports the theory of a research investigation.
- **Theory**: An idea or set of interrelated concepts and propositions intended to explain and make predictions regarding phenomena.
- **Variable**: An intervention or action that is being studied to observe its effect on the research group.

Self-Assessment Quiz Question #5

A study in which neither the researchers nor the participants know the specific details of the experiment is a/an:
a. Double-blind study.
b. Experimental study.
c. Control group study.
d. Random selection study.

Developing the clinical (research) question

Scenario 4

Mai works in the stroke rehabilitation unit of a large teaching hospital. She has recently been promoted to Clinical Nurse II and she is very proud of her achievements. As part of her new role, Mai has been appointed to serve as a member of the hospital's Nursing Research Council.

Mai and her colleagues are concerned about an increase in the incidence of delirium among their patients. They believe that sleep deprivation is increasing this incidence. The standard on the unit is that patients are awakened for vital signs at 6 a.m. They are also bathed before 9:30 a.m. before physical and occupational therapy sessions begin. The nurses are proposing to delay taking vital signs and to bathe patients on a timetable that coincides with their habits at home before the stroke, including helping patients to bathe in the evening rather than early morning. They want to decrease sleep interruptions and promote adequate rest. They have found that patients who suffer from episodes of delirium have longer lengths of stay and poorer patient outcomes. Mai and her colleagues wonder what interventions can prevent delirium and ultimately lead to better patient outcomes.

Their initial proposed changes in clinical interventions will require changes in staffing routines and the cooperation of the interdisciplinary team. Mai's colleagues urge her to consult the members of the Nursing Research Council for help in determining if these changes are in alignment with available evidence and if a research study might help identify and implement practice changes. They also need help in formulating the clinical research question.

With the help of experts on the Nursing Research Council, an initial plan is developed:
- *Develop a focused clinical question to help focus on the relevant issues.*
- *Perform a literature search.*
- *Critically appraise relevant research articles.*
- *Identify other sources of evidence.*
- *Gather non-research data from the rehabilitation unit, including the incidence of delirium, characteristics of the affected population, and the effect of delirium on patient outcomes.*

In Scenario 4, Mai and her colleagues have some genuine concerns and ideas about improving practice. However, they need to define what they want to investigate. This means that it is necessary to develop a focused and structured question that will serve as a basis for the literature review and the identification of relevant external evidence.

The PICO format

Many nurses rely on the PICO format to formulate EBP research questions. The question itself will serve as a guide for literature review and the gathering of evidence (Polit & Beck, 2022).

- **"P" Stands for Population**
  What patient population/patient problem is being investigated? In this case, Mai's patient population consists of adult (18 years of age and older) stroke patients who suffer from delirium in the intensive care unit. However, the nurses also need to evaluate the need for further population specifications. For example, do clinical findings show that delirium occurs primarily in patients within a specific age range in their clinical setting? If so, that is the age range on which they will focus. For another example, is it necessary to eliminate patients from the study population who have received a diagnosis of dementia, which can be mistaken for delirium? Does the severity of stroke seem to predispose patients to delirium? Should they concentrate on a population with a certain degree of impairment caused by stroke? Findings from the literature, quality improvement data, and input from nurses who have clinical expertise in stroke rehabilitation will be used as evidence. Defining a particular population is a critical initial step that must be considered carefully.
- **"I" Stands for Intervention**
  What is going to be done for or to the identified patient population? What potential interventions should be considered to increase the amount of rest and sleep the patients receive? Mai and her colleagues propose changing the time vital signs are taken and when activities such as bathing are performed. They also want to show that ultimately getting more rest and potentially decreasing delirium will positively impact patient outcomes. Mai and her colleagues need to refine their focus. They may be looking at two issues: Does adequate sleep and rest decrease the incidence of delirium in stroke rehabilitation

patients? Does a decrease in delirium lead to an increase in the achievement of desired patient outcomes? Can the two issues be combined into one literature review or research study? Mai and her colleagues have some work to do before choosing the interventions. Interventions depend on the research question, and the question must be carefully developed.

- **"C" stands for Comparison**
  What is the alternative to the planned intervention? Mai and her colleagues are thinking of using a control group of patients who continue to have vital signs taken and will be assisted to bathe at the current times. This will provide a comparison to those patients whose sleep will not be interrupted for vital signs and bathing. However, if the question focuses on decreasing the incidence of delirium and improving patient outcomes, there needs to be a more evident determination of what the interventions will be, as well as who will comprise the control group.
- **"O" Stands for Outcome**
  What are the desired outcomes? Outcomes require that nurses clearly state what they are hoping to achieve.

The preceding questions should help Mai and her colleagues to determine what they want to investigate. As they work with nurse researcher colleagues, they will refine and identify their clinical research question.

Nursing consideration: Developing and refining a clinical research question is not an easy task. Consulting nurses with research expertise will help to accomplish this task and conduct a successful critical appraisal of relevant literature.

Review of the literature and critical appraisal of EBP research articles

After the research question is refined and clarified, a literature review is necessary. A literature review (or critical appraisal) is an organized, systematic process for evaluating research studies in a given field. The reviewer uses a set of standardized criteria to objectively establish the strength, quality, quantity, and consistency of evidence provided by the studies. The goal of the literature review is to determine the applicability of the research under review to clinical practice (Polit & Beck, 2022).

Nursing consideration: Evidence gathered from the critical appraisal of the literature—as well as patient care data, clinical experience/expertise, and patient and family preferences and values—are all used to justify changes in clinical practice. This evidence can also support the current practice or trigger additional research. Nurses must be prepared to objectively evaluate all types of evidence to provide the best possible patient care.

The literature review helps narrow the researcher's focus and establish a foundation and theoretical basis for the research project. A review of the literature should achieve the following (Polit & Beck, 2022):

- Identify appropriate areas for investigation.
- Provide credible initiatives for patient care.
- Define appropriate concepts.
- Explain the proposed relationship between concepts.
- Provide evidence for clinical practice initiatives.

The literature review involves critiquing the evidence and putting the results of the review in writing. How findings from the literature review are presented can persuade organizational leadership to accept or reject proposed changes in clinical practice or support or block proposed nursing research studies. Thus, nurses must be able to prepare a clear and concise written essay of their literature review findings.

Here are some recommendations for reading and critiquing a research article (Polit & Beck, 2022):

- **Authors**: Who conducted the research? Do their titles and credentials indicate expertise in the research?
- **Bias**: Is the article free of bias? Were the researchers paid to conduct the research? If so, did this interfere with the ability of the researchers to conduct scientific, objective research and report the findings without bias? Was there any evidence of researcher bias in the data collection or analysis?
- **Title**: Does the title accurately describe the article? A good title is intriguing and triggers interest. However, before spending time reading the article, it is best to critically review the title. An appropriate title should communicate key concepts, methods, and variables. For instance, the keywords of the investigator's research question should appear, to some extent, in the titles of the article they are critiquing. Reading the abstract helps to determine if the title accurately describes the article.
- **Abstract**: Does the abstract accurately convey the key concepts of the article? A good abstract contains the purpose of the study; the pertinent research question or questions; and a brief overview of methodology, results, and conclusions. The abstract should help the nurse decide if the article is worthy of being included in their literature review. Abstracts should typically be from 250-500 words in length.
- **Introduction**: Does the introduction make the purpose of the article clear?
- **Problem statement**: Is the problem clear? Is it properly explained?
- **Purpose of the study**: Has the researcher clearly explained the purpose of the study?
- **Research questions**: Are the research questions clearly stated? Is there a null hypothesis, if appropriate?
- **Theoretical framework**: Is the theoretical framework described? If there is no theoretical framework, should there be one?
- **Literature review**: Is the literature relevant to the study? Is it thorough? Does it include recent research (within the last 5 years, although 3 years is preferred)? Does the literature review support the need for the study?
- **Methods**: Is the research design appropriate for the study? Does the sample correlate with the research design and is the size adequate? Was a data collection instrument used? If so, was it relevant to the study? How were data collected? Were methods, instruments, and surveys reliable and valid?
- **Analysis**: Is the analytical approach consistent with the study questions and research design?
- **Results**: Are the results presented clearly in the text of the article? Are there tables or figures? If so, are they clear and relevant to the study? Are the statistics clearly explained?
- **Discussion**: Are the results explained in relation to the theoretical framework and research questions? Is the significance to nursing explained?
- **Limitations**: Are limitations identified? Are the implications of the limitations discussed?
- **Conclusion**: Are there recommendations for nursing practice, future research, and policymakers?

All literature reviews should include the following (Melnyk & Fineout-Overholt, 2019):

- **Introduction**: Describes the general state of the literature on the identified topic.
- **Methodology**: Provides a concise narrative of how the literature search was conducted, including what terminology was used to initiate the search, so that it is reproducible by other investigators.
- **Findings**: Provides a summary of the major findings of the critical analysis of the literature review.
- **Discussion**: Presents a more detailed description of findings from broader studies to more focused studies.

- **Conclusion**: Provides the overall state of the research; implications for clinical practice; and, if indicated, suggestions for additional research.

When reviewing the literature, nurses are cautioned to avoid the following (Melnyk & Fineout-Overholt, 2019):

- Stating personal opinions, unless the review includes evidence that supports such opinions.
- Stating what they think nurses should do, unless the review includes evidence that supports such assertions.
- Providing long descriptions of the topic under review without referencing research studies.
- Providing numerous lengthy definitions, signs and symptoms, and treatment initiatives of a specific illness without focusing on research studies that provide evidence to support the purpose of the review of the literature.
- Discussing research studies without showing how these studies correlate with each other.

Nursing consideration: A literature review must be focused, succinct, organized, and free from personal bias.

Identification of key words for literature search

Before accessing Internet search engines or other resources, it is imperative to identify keywords to save time and narrow the search to relevant citations. For example: Suppose a group of rehabilitation nurses specializing in stroke care is interested in improving bladder training for increasing continence and independent bladder functioning. In a search engine, the nurses cannot simply type in "urinary incontinence" or "bladder training." Citations for thousands, if not millions, of resources will appear.

Researchers must ask themselves the following questions (Polit & Beck, 2022):

- What is the specific problem or research question that the literature must help to define?
- What is the scope of the literature review?
- Is the search wide enough to make sure that all relevant literature has been found?
- Is the search narrow enough to make sure that irrelevant literature has been discarded?
- Have we critically analyzed the literature?
- Have we cited and discussed study findings contrary to our perspectives?

In the example about bladder training, researchers would use such words as "stroke," with "bladder training" and "urinary incontinence" being typed as a subcategory under "stroke." Researchers must decide on age parameters: if they are going to exclude any coexisting problems, such as Alzheimer's disease; and if they are going to study both men and women.

The search can be narrowed by asking the following questions (Polit & Beck, 2022):

- Who are the patients to be studied?
- What is the problem?
- When does the problem occur?
- Why does it need to be studied?

Researchers can access search engines by using such terms as "bladder retraining in female stroke patients over the age of 65" and "urinary incontinence in female stroke patients over the age of 65". This would limit the study to females of a certain age. If researchers wanted to study both men and women, the researcher would include the term "male" in the parameters or delete the term "female."

Assessing credibility of the literature

Because many resources are now published exclusively on the Internet, it is vital to critique these resources. Here are some questions to ask to help in the critique of Internet resources (Polit & Beck, 2022):

- What are the author's credentials? Are they listed? Are the credentials appropriate for the material they have written?
- Is the author's contact information provided?
- Are references listed? Are they credible? Are they current?
- When was the website created? How and when is the site updated?
- Is any website sponsorship clearly stated? Funding sources must be identified.
- Does the website contain advertising? If so, is it separate from the scholarly material?
- Is information objective and free from bias?
- Does the website provide contact information if technical assistance is needed?
- Is a privacy statement available? Any information requested by users of the website should be protected by a privacy statement.
- What is the purpose of the website? Is it primarily scholarly, informative, or entertaining?

Scholarly sources are typically at least 5 pages long and usually longer. The articles usually have an abstract and a specific outline to the article: introduction (background), presentation of the problem, how the problem is going to be studied, findings, analysis, and recommendations. Scholarly web sources typically end in .edu or .org. Websites ending in .com and .gov are not typically the location to find scholarly articles. Google Scholar is a good place to start looking for information in databases if the researcher is not attached to a university and does not have access to their databases.

Nursing consideration: Many websites have a link called "About Us". This link generally describes the persons responsible for the site and those who contribute scholarly information. This description should include credentials and contact information. Nurses must always be aware of author credentials when conducting a literature review (Polit & Beck, 2022).

Finding a search engine

One of the first questions nurses should ask when embarking on a search for evidence in the literature is where can relevant research articles be found? The following are helpful search engines for sources of EBP nursing research articles:

- **Agency for Health Research and Quality (AHRQ)**: This agency is a free source of government documents for researchers: http://www.ahrq.gov
- **The Cumulative Index to Nursing and Allied Health Literature (CINAHL)**: This site provides indexing of nursing and allied health literature that covers a wide range of topics. Included in the database are nursing journals and publications, books, nursing dissertations, standards of practice, selected conference proceedings, book chapters, and audiovisuals: https://www.ebscohost.com/nursing/products/cinahl-databases/cinahl-complete
- **Cochrane Collaboration**: This resource provides access to abstracts from the Cochrane Database of Systematic Reviews: http://www.cochrane.org
- **EBSCO Host**: EBSCO Information Services provides information from e-journals, e-books, and research databases: http://www.ebsco.com
- **JBI EBP Database**: Membership is required to access this resource. It provides recommended links and descriptions of levels of evidence of articles: http://joannabriggs.org/

- **National Library of Medicine and the National Institutes of Health MEDLINE and PubMed Resources Guide**: This resource contains journal citations and abstracts for biomedical literature from around the world: http://www.nlm.nih.gov/bsd/pmresources.html
- **ProQuest Nursing & Allied Health Source**: Designed to meet needs of researchers at healthcare facilities and nursing and allied health programs at academic institutes, its database offers abstracting and indexing for thousands of titles and full-text dissertations: http://www.proquest.com/products-services/pq_nursingahs_shtml.html
- **PubMed**: This site comprises more than 22 million citations for biomedical literature from MEDLINE: http://www.ncbi.nlm.nih.gov/pubmed
- **Turning Research into Practice**: This site provides a wide sampling of available evidence from a variety of free online resources: http://www.tripdatabase.com
- **Virginia Henderson International Nursing Library**: This service is free of charge and helps nurses to locate conference abstracts and research study abstracts. It is supported by Sigma Theta Tau International: http://www.nursinglibrary.org

Levels of evidence

It is important to determine which level of evidence the research article provides when critiquing research studies. Levels of evidence are organized into a ranking system to describe the strength of the results measured in research studies. Level I is the strongest form of evidence and Level VII is the weakest (Melnyk & Fineout-Overholt, 2019):

- **Level I**: Evidence is gathered from a systematic review of all relevant randomized controlled trials (RCTs) or evidence-based clinical practice guidelines based on systematic reviews.
- **Level II**: Evidence is gathered from at least one well-designed RCT.
- **Level III**: Evidence is gathered from well-designed controlled trials without randomization, a quasi-experimental study.
- **Level IV**: Evidence is gathered from well-designed case-control and cohort studies.
- **Level V**: Evidence is gathered from systematic reviews of descriptive and qualitative studies.
- **Level VI**: Evidence is gathered from a single descriptive or qualitative study.
- **Level VII**: Evidence is gathered from the opinion of authorities or reports of expert committees.

After completing and presenting the literature review to colleagues and leadership representatives, decisions about translation into practice and the feasibility of conducting nursing research are made. In some cases, clinical practice changes will be piloted based on findings. In other cases, nursing research supervised by trained nurse researchers will be conducted.

Self-Assessment Quiz Question #6

A study that is relying primarily on evidence gathered from at least one well-designed RCT is relying on what level of evidence?

a. VII.
b. V.
c. II.
d. I.

Overview of the nursing research process

After developing the research/clinical practice question and conducting the literature review, the following research elements must be considered (Polit & Beck, 2022):

- **Time**: Will the research be completed within a realistic timeframe?
- **Adequate numbers of participants**: Can an adequate number of patients be obtained to participate in the study?
- **Location of the study**: Most researchers select the organizations for which they work or have some type of association, such as a clinical affiliation. However, researchers must consider the review and approval processes mandated by the organization, the resources available for nursing research, and how supportive the organization is to the nursing research process.
- **Finances**: The costs associated with the nursing research project must be considered. These costs include staff time related to conducting the research, expenses related to analysis, copying charges, and postage or computer resources if surveys or questionnaires are part of the research methodology.
- **Ethics**: Ethics is a significant concern in any research project. How are patients who participate in the study protected? Is there any risk to the health and safety of patients who participate in a study? For example, are they taking an experimental drug or agreeing to an experimental treatment method? How will participants receive an explanation of the study and how will they give informed consent to participate in the research project? How will confidentiality be protected? How will objectivity be maintained during data analysis? At times, some unethical researchers have altered data to skew findings to support the researchers' beliefs. Results must be reported accurately, objectivity must be maintained during analysis, and patients' rights and well-being must always be protected.

Self-Assessment Quiz Question #7

Issues related to ethics in the nursing research process include:

a. Maintaining objectivity during analysis.
b. Determining costs related to analysis.
c. Determining how supportive the organization is to the nursing research process.
d. Assessing if the research study will have an adequate number of participants.

Nursing consideration: It can be a challenge to determine how many research participants are needed for a research study. Qualtrics (a web-based survey tool to conduct survey research, evaluations, and other data collection activities) can be helpful when determining sample size.

After determining how the research study should be implemented, a written proposal to obtain permission to conduct research is developed and presented to the organization's institutional review board (IRB). The IRB reviews studies to ensure that ethical standards are met for the protection of the rights of human participants (Polit & Beck, 2022).

Written research proposals generally contain the following information (Polit & Beck, 2022):

- Cover sheet.
- Introduction to the proposed research study.
- Objectives of the study.
- Significance of the study.
- Methodology.
- Sample of the consent form.

The IRB often asks for additional information before granting permission to conduct research. After such permission is secured, the research study is implemented and results are evaluated. Results, supported by the literature review and evaluation of the study findings, may indicate a change in nursing practice. This is referred to as *translating evidence into practice*.

Translating evidence into practice

The ultimate goal of EBP is to translate evidence into practice for improving patient outcomes.

In its simplest format, EBP is based on the following (Polit & Beck, 2022):

- **Identifying the clinical EBP research question**: Questions stem from concerns and observations regarding clinical practice and the need to determine if changes in clinical practice are warranted.
- **Gathering evidence**: All available sources of evidence (the literature, clinical expertise, clinical practice guidelines, patient values, and preferences) are objectively reviewed and the evidence identified.
- **Conducting research**: After evaluating the evidence, it may become apparent that implementing a nursing research study is appropriate. Research is conducted under the supervision of nursing research experts and with the approval of the organization's IRB.
- **Generating new knowledge**: Research should add to the body of nursing knowledge for enhancing patient outcomes.
- **Disseminating knowledge gained from research or a critical analysis of all sources of evidence**: Findings should be shared at the unit and departmental meetings, committee meetings, and meetings with administrative and leadership team members. Knowledge gained should be shared not only within the employing organization, but also with the nursing community at large via publications, presentations at professional association meetings and conferences, and collaboration with academic settings.
- **Using findings in practice**: Using evidence to make practice changes or justify the current practice is the foundation of sound healthcare initiatives.
- **Improving the quality of care**: The ongoing primary goal of any healthcare professional should be to improve the quality of care patients are receiving. Translating evidence into clinical practice will improve patient care services.

Self-Assessment Quiz Question #8

Which of the following statements about translating evidence into practice is true?

a. EBP research questions are determined by the physician.
b. Sources of evidence are limited to the literature.
c. Research should add to the body of nursing knowledge.
d. Using evidence to make practice changes is under the jurisdiction of the IRB.

Self-Assessment Quiz Question #9

The role of the IRB is:

a. To design the research study.
b. To determine sample size.
c. To determine costs of the study.
d. To ensure that ethical standards are met.

Clinical practice EBP guidelines

Evidence-based guidelines—also referred to as clinical practice guidelines—are defined as systematic statements to help the practitioner and patient decide appropriate healthcare for specific clinical circumstances. The National Guideline Clearinghouse (NGC), sponsored by the Agency on Healthcare Research and Quality (AHRQ), has stated, "Guidelines are not fixed protocols that must be followed but are intended to identify generally recommended interventions to be considered by a knowledgeable healthcare provider" (National for Complementary and Integrative Health, 2021).

Many professional organizations and associations have developed guidelines for their respective fields. Such guidelines are developed by panels or groups of experts who synthesize and evaluate the evidence before making recommendations for clinical practice.

The American Academy of Physical Medicine and Rehabilitation has explained the need for clinical practice guidelines. According to the Academy, guidelines serve to accomplish the following (2021).

- Describe appropriate care based on the best available. scientific evidence and broad consensus.
- Reduce inappropriate variation in practice.
- Provide a more rational basis for referral.
- Provide a focus for continuing education.
- Promote efficient use of resources.
- Act as a focus for quality control, including audit.
- Highlight shortcomings of existing literature and suggest appropriate future research.

Nursing consideration: Systematic reviews (SRs) of clinical practice guidelines can be valuable tools when searching for valid and reliable guidelines. They can be used to systematically identify, assess, and summarize the current state of guidance on a specific clinical topic (Johnston et al., 2019).

Numerous clinical guidelines are available from a wide variety of healthcare specialties. These guidelines are accessible via the Internet. Healthcare professionals should critique these guidelines. For example, one could ask the following questions ((Johnston, et al., 2019; University of Washington Health Sciences Library, 2019):

- Who were the authors of the guidelines? What are their credentials? Do their credentials indicate expertise in the field the guidelines address?
- Is there an identified professional association that is affiliated with the guidelines? If so, is it a reputable association?
- Is there an identified healthcare system associated with the guidelines? If so, is the healthcare system reputable?
- Are there any conflicts of interest among the authors, associations, or healthcare system and the content of the guidelines? In other words, does one or more of these entities have a monetary or other interest in the content of the guidelines?
- Do the guidelines reflect the application of the most recent scientific evidence?
- What research findings were used to develop these guidelines? Is the research valid and reliable?
- Do the guidelines contradict any valid research findings?
- Are explanations for changes from previous guidelines given? Do these explanations make sense? Are changes based on recent research findings?
- Can the guidelines be implemented into current clinical practice without difficulty?
- Do the guidelines provide resources to help clinicians see how the guidelines were developed? Is contact information available for guideline authors so that clinicians who have questions about the guidelines or who need help with their implantation can contact the authors or other sources of help?

Here are some resources that provide valuable information about locating clinical practice guidelines:

- **AIDSinfo**: This site has all federally approved HIV/AIDS medical practice guidelines. The guidelines are available in multiple formats and contain treatment recommendations and tables: https://aidsinfo.nih.gov/guidelines
- **American Academy of Physical Medicine & Rehabilitation**: This site provides timely, in-depth information about physical medicine and rehabilitation guidelines: https://www.aapmr.org/home
- **American College of Physicians (ACP) Clinical Recommendations**: This site contains three different types of clinical recommendations: clinical practice guidelines, clinical guidance statements, and best practice advice. The ACP's goal is "to provide clinicians with recommendations based on the best available evidence, to inform clinicians of when there is no evidence, and to help clinicians deliver the best healthcare possible: https://www.acponline.org/clinical-information/guidelines
- **American Diabetes Association (ADA)**: The ADA provides the latest ADA clinical practice recommendations. These guidelines are regularly reviewed and updated: https://diabetesjournals.org/care/issue/44/Supplement_1
- **The American Heart Association**: The American Heart Association and the American Stroke Association publish medical guidelines and scientific statements on various cardiovascular disease and stroke topics: https://professional.heart.org/professional/GuidelinesStatements/UCM_316885_Guidelines-Statements.jsp
- **Best Practice Information Sheets**: Joanna Briggs Institute Guidelines are produced specifically for practicing healthcare professionals and are based on the best available international research evidence as reported in systematic reviews: http://joannabriggs.org/
- **FGCU Library Database**: This database is a list of practice guidelines for nursing students and licensed nurses: https://library.fgcu.edu/az.php
- **CMA Infobase**: This is a Canadian database of Canadian practice guidelines and is maintained by the Canadian Medical Association. The database contains 1,200 guidelines that were developed or endorsed by authoritative medical and healthcare organizations in Canada: https://joulecma.ca/cpg/homepage
- **National Heart, Lung, and Blood Institute**: This site has resources for both healthcare consumers and healthcare professionals. It provides resources to keep healthcare professionals informed about the best practices to treat and manage patient care for those persons who are affected by sickle cells, asthma, hypertension, von Willebrand disease, and cardiovascular disease, and risk reduction in youth: https://www.nhlbi.nih.gov/health-topics/publications-and-resources
- **NCCN Clinical Practice Guidelines in Oncology, National Comprehensive Cancer Network**: The NCCN Clinical Practice Guidelines in Oncology are the recognized standards for clinical policy in oncology. To date, they are the most comprehensive and most frequently updated clinical practice guidelines available in any area of medicine. The guidelines are updated on an ongoing basis. Treatment recommendations are specific and implemented through performance measurement. Issues addressed include cancer detection; prevention and risk reduction; workup; and diagnosis, treatment, and supportive care: https://www.nccn.org/professionals/physician_gls/default.aspx
- **UK's National Institute for Health and Care Excellence**: Referred to as *Guidance Lists* in the United Kingdom, this site has more than 1,110 practice guidelines: https://www.nice.org.uk/guidance/published

Resources to help healthcare professionals locate various practice guidelines also are available (Meyer, 2018; University of Washington Health Sciences Library, 2019):

- **ClinicalKey**: Select "Guidelines" in the browse menu. A search box allows for the search of a particular topic or guideline: https://www.clinicalkey.com/#!/
- **DynaMed Plus**: Healthcare professionals begin by searching for the desired topic or guideline. Guidelines and resources will then be listed in the left-side menu. DynaMed Plus gathers guidelines from national and international sources: https://search.ebscohost.com/login.aspx?authtype=ip,uid&profile=dmp
- **ECRI Guidelines Trust**: ECRI Guidelines Trust has replaced the National Guideline Clearinghouse. It is a publicly available web-based repository of objective evidence-based clinical practice guideline content. Its purpose is to provide physicians, nurses, other clinical specialties, and members of the healthcare community with up-to-date clinical practices to advance safe and effective patient care. This centralized repository includes evidence-based guidance developed by nationally and internationally recognized medical organizations and medical specialty societies: https://guidelines.ecri.org/
- **PubMed**: PubMed comprises more than 20 million citations. There is a quick start guide to help facilitate searches: https://www.ncbi.nlm.nih.gov/pubmed?otool=yalelib
- **UpToDate**: After searching for the topic in question, society guideline links appear in the menu. Guidelines are gathered from both national and international organizations: https://www.uptodate.com/contents/overview-of-clinical-practice-guidelines

Nursing consideration: Many guidelines are accessible on the Internet. It is important to ensure that the most current guidelines are used and that these guidelines are based on a systematic review of the scientific evidence developed by a panel of experts. Guidelines must be accepted at employing organizations (Meyer, 2018).

How can nurses and other healthcare professionals be sure that the websites they are using to obtain clinical guidelines contain accurate and up-to-date information? The University of Washington's Health Sciences Library offers the following suggestions for evaluating websites (Schnall, n.d.). The guidelines have been adapted to focus on clinical guidelines websites:

- **Authority**.
  - Are the guidelines' authors clearly identified?
  - Are the credentials of the authors provided?
  - Are the authors affiliated with a healthcare system or professional association? Do the authors have any declared conflicts of interest?
  - Do the authors have credibility in the fields the guidelines are written for?
  - Is contact information provided for the authors?
- **Accuracy**.
  - Is the information provided in the guidelines accurate?
  - Are references listed? Were they written within the last 3 years? If not, are they considered "classic" information?
  - Are sources of information clearly stated?
  - Is there an explanation of the research methods that were used to gather data?
- **Objectivity**.
  - Is the purpose of the site clearly stated?
  - Is the information presented without bias? Are any conflicts of interest apparent?
  - Is sponsorship acknowledged? Does sponsorship bias the information presented?

- **Coverage**.
  - Does the site meet the needs of the healthcare professionals?
  - Are the guidelines comprehensive? Do they address all-important key aspects of care?
  - Does the site provide any extra features or information not available from other sources or in other formats?
- **Currency**.
  - Is the information provided current? Is the website itself current?
  - Are links current? Do links supplement information important to guideline implementation?
- **Design**.
  - How is the website organized? Is it easy to navigate?
  - Is there an internal search engine?
  - Can the site be accessed on a reliable basis?

The National Heart, Lung, and Blood Institute appoints panels of experts to conduct systematic evidence reviews to facilitate clinical practice guideline development. These experts are not paid and are selected for their scientific and clinical expertise. Persons with apparent financial conflicts and those with professional or intellectual bias are excluded from panel membership.

However, conflicts of interest are sometimes identified among members of the writing and review groups. The following actions handle such conflicts (National Heart, Lung, and Blood Institute, n.d.):

- Members voluntarily verbally disclose any potential conflicts of interest to each other during a general meeting. They must then recuse themselves from voting.
- A methodologist is hired to work with writing groups to provide objectivity in data analysis and in the ranking of evidence via the preparation of evidence tables and facilitating consensus.
- Expert panels provide opportunities for public review and comments via the National Heart, Lung, and Blood Institute or a scheduled public forum.

In summary, reliable, current, and trustworthy clinical practice guidelines should be based on a systematic literature review. The most valid research findings are identified and used to write or update the clinical guidelines.

The quality, reliability, and validity of evidence determines if a particular patient intervention is warranted. The impact of guideline implementation on patient outcomes should be part of every healthcare organization's quality improvement monitoring.

Barriers to the implementation of EBP in nursing

It seems only logical that all organizations should support EBP. However, nurses have identified significant barriers to its implementation. These barriers must be recognized and eliminated or reduced as much as possible.

EBP can be successfully implemented only if all healthcare team members support the EBP model that guides practice in their organization and understand how to apply it to their practice. This means that ongoing continuing education regarding EBP implementation is essential (Polit & Beck, 2022).

Nursing consideration: Research has suggested that the more education nurses have, the more confidence they have in implementing EBP. Thus, nursing and organizational leadership should facilitate the pursuit of additional formal academic education, including graduate education and ongoing continuing education (Polit & Beck, 2022).

According to recent research, the following are barriers to EBP and suggestions for the reduction or elimination of such barriers.

Organizational culture

The organization's culture is pivotal to EBP implementation and the process of conducting nursing research. If the organization's administrative and leadership staff do not support nursing research and EBP, it is nearly impossible to implement such processes successfully (Paler, et al., 2021). An organizational culture that is stagnant tolerates an attitude of "we have always done it this way," even if evidence suggests that the "old ways" are no longer an acceptable practice. Some nurses have reported that a culture of learning exists in organizations that promote EBP. Leadership team members want clinicians to have the most current knowledge and access to the most reliable evidence in these types of cultures. Access to the most current evidence promotes best practices from nurses. To develop a culture of learning leadership, all healthcare providers must learn about the benefits of EBP and research. Benefits that are most likely to grab the attention of these individuals are decreases in healthcare costs, decreased length of stay, decreased readmissions, and improved patient outcomes. In these situations, administration and leadership need continuing education as much as staff members do.

Insufficient knowledge

Lack of knowledge has been cited as a significant barrier to research and EBP implementation (Paler, et al., 2021). The education received in basic nursing education programs is not sufficient. Nurses at all levels of practice and who hold all types of nursing positions need ongoing continuing education regarding the implementation of nursing research and EBP. The organization's nursing professional development (NPD) practitioners must work closely with all members of the organization to provide ongoing continuing education and training in EBP and research processes.

Lack of motivation

It is easy to become entrenched in the routine of "we have always done it this way." Even experienced nurses believe that if they have implemented patient care in specific ways for a long time without problems, that there is no need to change (Alatawi, 2021). Some research has even suggested that the longer nurses have practiced nursing, the more likely they are to become entrenched. This further emphasizes the need for continuing education. Adult learners need to know why they are doing something or why they need to change established patterns of care. Disseminating evidence that shows EBP improves patient outcomes is imperative.

Perceived lack of time

Nurses and nurse managers have expressed concern that there is not enough time to stay current regarding the latest evidence or to participate in nursing research (Paler, et al., 2021). Patient care is the top priority. However, nursing administration and leaders should allot time for continuing education and research whenever possible.

Inadequate access to up-to-date technology

It is an overwhelming challenge to access the most current evidence and participate in nursing research without good technological equipment (Alatawi, 2021). Nurses need easy access to the Internet, assistance to use technology as needed, and education to use technology as part of EBP and nursing research. Librarians in universities and hospitals and hospital education departments can often assist.

Physician and patient issues

Research findings have suggested that physicians and patients have different values and beliefs that conflict with EBP. Treatment initiatives that have been in place for years and seem to be working may serve as a basis for conflict. Implementing change can be quite a struggle, especially if there is no desire to acknowledge that new evidence could be helpful (Alatawi, 2021). Support from administration and leadership, the establishment of a culture of change, and ongoing education for all practitioners are essential.

Leadership support
Administration and leadership team members should overtly support and acknowledge nurses who participate in, publish, and disseminate EBP and research findings (Melnyk & Fineout-Overholt, 2019). Such nursing actions should be acknowledged in performance evaluations and be part of the requirements for clinical advancement.

Many strategies in the promotion of EBP and nursing research and strategies to reduce or remove barriers to their implementation depend on the support of administration and leadership. This does not mean, however, that staff nurses do not have a role in establishing a culture of learning and practice improvement.

Here are some suggestions for staff nurse involvement in the promotion of EBP and nursing research:

- Identify ways to disseminate new, relevant evidence to nursing colleagues. Examples of ways to do this are starting a nursing journal club and sharing quick, short "blasts" of new information via electronic media such as texting, e-mail, and the organization's website employee section. Information may also be shared with management's authorization via the organization's social media pages. A portion of staff meetings should be devoted to disseminating EBP or nursing research information.
- Promote the formation of an EBP/nursing research council. As more and more organizations adopt a shared governance model, forming such councils is expected and is becoming commonplace. A council with designated responsibility for EBP and nursing research can evaluate EBP data that may be helpful, not only for nursing but also for the entire organization. Consider the formation of an interdisciplinary EBP council. Patient care plans are not developed in departmental isolation. The actions of one department affect the actions of the others. Working together to promote EBP will enhance patient outcomes.
- Participate in interdisciplinary patient rounds. Regularly working with other healthcare team colleagues can improve patient care and improve interdisciplinary working relationships. Sharing EBP and nursing research data in appropriate ways will also help dispel the doubts of those who are reluctant to adopt the EBP format of delivering patient care
- Participate in and promote continuing education about EBP and nursing research. Work with nursing professional development specialists as they develop and implement such education. Encourage colleagues to participate in education. Staff nurses should also consider taking an active role in educating colleagues. They can ask experts in continuing education to help them develop and enhance teaching skills.
- Encourage the establishment of a mentor program for EBP and nursing research. Research has suggested that nurses want and need mentors to implement EBP and participate in nursing research effectively. Nurses with expertise in EBP and nursing research should consider becoming mentors. These individuals have an obligation to disseminate knowledge and promote practice strategies that improve patient outcomes.
- Stay current in the latest research and clinical practice guidelines in the field. Identify professional nursing organizations in specialty practice areas that publish standards of practice and EBP, and frequently check the online sites or receive notices of new information.

Nursing consideration: When sharing EBP and research information via public sources (e-mail, the organization's social media pages), nurses must be sure to adhere to HIPAA and organizational mandates regarding privacy and confidentiality. They should avoid posting information on personal social media pages. At no time should privacy and confidentiality standards be violated!

Self-Assessment Quiz Question #10

Barriers to EBP and nursing research can be diminished by:
a. Establishing a culture of administrative control.
b. Taking punitive action against nurses who are not motivated to implement EBP.
c. Allowing physicians to dictate nursing practice.
d. Providing ongoing continuing education.

Conclusion

Organizations are responsible for establishing a culture of learning that stimulates ongoing inquiry and translation of the best available evidence to clinical practice. Healthcare organizations must support EBP and nursing research by ensuring that nurses have the time to devote to EBP and nursing research, have access to continuing education, and have opportunities to collaborate with interdisciplinary teams for the provision of the best possible patient care.

References

- Alatawi, M., Aljuhani, E., Alsufiany, F., Aleid, K., Rawah, R., Aljanabi, S., & Banakhar, M. (2020). Barriers of implementing evidence-based practice in nursing profession: A literature review. *American Journal of Nursing Science*, *9*(1), 35. https://doi:10.11648/j.ajns.20200901.16
- American Academy of Physical Medicine and Rehabilitation. (2021). Clinical Practice Guidelines. https://www.aapmr.org/quality-practice/evidence-based-medicine/clinical-practice-guidelines
- Center for Innovation in Research and Teaching. (n.d.). *Quantitative approaches.* https://cirt.gcu.edu/research/developmentresources/research_ready/quantresearch/approaches
- Center on Knowledge Translation for Disability & Rehabilitation Research (KTDRR). (2021). *Evidence-based guidelines.* http://ktdrr.org/ktlibrary/guidelines.html
- Chein, L. (2019). Evidence-Based Practice and Nursing Research. *Journal of Nursing Research, 27*(4). https://www.doi:10.1097/jnr.0000000000000346
- Dang, D., Dearholt, S., Bissett, K., Ascenzi, J., & Whalen, M. (2022). *Johns Hopkins evidence-based practice for nurses and healthcare professionals: model and guidelines.* 4th ed. Sigma Theta Tau International. https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html
- Duncan, R., Szabo, B., Jackson, Q. L., Crain, M., Lett, C., Masters, C., Spinks, R., Uhrig, L. K., & Gullatte, M. M. (2021). Care and Coping During COVID-19: Practice changes and innovations in the oncology setting. *Clinical Journal of Oncology Nursing*, 25(1), 48–55. https://doi-org.libproxy.troy.edu/10.1188/21.CJON.48-55
- Ferreira-Hermosillo, A., Molina-Ayala, M. A., Molina-Guerrero, D., Garrido-Mendoza, A. P., Ramírez-Rentería, C., Mendoza-Zubieta, V., Espinosa, E., & Mercado, M. (2020). Efficacy of the treatment with dapagliflozin and metformin compared to metformin monotherapy for weight loss in patients with class III obesity: a randomized controlled trial. *Trials*, 21(1), 1–10. https://doi-org.libproxy.troy.edu/10.1186/s13063-020-4121-x
- Fu, L., Su, W., Ye, X., Li, M., Shen, J., Chen, C., Guo, Q., Ye, L., & He, Y. (2020). Evidence-Based Practice Competency and Related Factors Among Nurses Working in Public Hospitals. INQUIRY: *The Journal of Health Care Organization, Provision, and Financing*. https://doi.org/10.1177/0046958020927876
- Harvey, G. & Kitson, A. (2016). PARiHS revisited: From heuristic to integrated framework for the successful implementation of knowledge into practice. *Implementation Science, 11*(1). https://doi.org/10.1186/s13012-016-0398-2.
- Henry, S. L., Mohan, Y., Whittaker, J., Koster, M., Schottinger, J. E., & Kanter, M. H, (2019) E-SCOPE: A strategic approach to identify and accelerate implementation of evidence-based best practices. *Medical Care, 57*. p S239-S245. https://doi:10.1097/MLR.0000000000001191
- Iowa Model Collaborative. (2017). Iowa model of evidence-based practice: Revisions and validation. *Worldviews on Evidence-Based Nursing, 14*(3), 175–182. https://doi:10.1111/wvn.12223
- Johnston, A., Kelly, S. E., Hsieh, S. C., Skidmore, B., & Wells, G. A. (2019). Systematic review of clinical practice guidelines: A methodological guide. *Journal of Clinical Epidemiology,* 108, 64–76. https://www.sciencedirect.com/science/article/pii/S0895435618302877
- Kaplan, L. (n.d.). *Framework for how to read and critique a research study.* Silver Spring, MD: American Nurses Association. https://www.nursingworld.org/
- Kerr, H. & Rainer, D. (2019). Addressing the current challenges of adopting evidence-based practice in nursing. *British Journal of Nursing, 30*(16), 970-974. https://doi.10.12968/bjon.2021.30.16.970
- Li, S. M., Cao, M., & Zhu, X. (2019). Evidence-based practice: Knowledge, attitudes, implementation, facilitators, and barriers among community nurses—systematic review. *Medicine, 98*(39). https://doi:10.1097/MD.0000000000017209
- Melnyk, B. M. & Fineout-Overholt, E. (2019). *Evidence-based practice in nursing and healthcare: A guide to best practice (4th. Ed.)* Wolters Kluwer.
- Meyer, C. (2018). *Finding clinical practice guidelines.* https://library.medicine.yale.edu/blog/finding-clinical-practice-guidelines
- National Center for Complementary and Integrative Health. (2021). Clinical practice guidelines. https://www.nccih.nih.gov/health/providers/clinicalpractice
- National Collaborating Centre for Methods and Tools. (n.d.). *Stetler model of evidence-based practice.* https://www.nccmt.ca/knowledge-repositories/search/83
- National Heart, Lung, and Blood Institute. (n.d.). *About systematic evidence reviews and clinical practice guidelines.* https://www.nhlbi.nih.gov/node/80397
- Newhouse, R. P., Dearholt, S., Poe, S., Pugh, L. C., & White, K. M. (2007). Organizational change strategies for evidence-based practice. *The Journal of Nursing Administration, 37*(12), 552–557. https://doi.org/10.1097/01.NNA.0000302384.91366.8f
- Paler, C. M. & Arganza Cachaper, G. (2021). Evidence-Based Practice: Are Nurses Ready? *Journal of Nursing Practice Applications & Reviews of Research*, 11(1), 43–50. https://doi-org.libproxy.troy.edu/10.13178/jnparr.2021.11.01.1006
- Polit, D. F. & Beck, C. T. (2022). *Essentials of nursing research: Appraising evidence for nursing practice (10th ed.).* Wolters Kluwer.
- Rashid, M., Hodgson, C. S., & Luig, T. (2019). Ten tips for conducting focused ethnography in medical education research. *Medical education online, 24*(1), 1624133. https://doi.org/10.1080/10872981.2019.1624133
- Schnall, J. G. (n.d.). *Criteria for evaluating websites.* http://media.hsl.washington.edu/media/howto/navigating/criteria.pdf
- SIS International Research. (2021). What is quantitative research? https://www.sisinternational.com/what-is-quantitative-research/
- Teskereci, G., Öncel, S., & Arslan, Ü. Ö. (2020). Developing compassion and emotional intelligence in nursing students: A quasi-experimental study. *Perspectives in Psychiatric Care*, 56(4), 797–803. https://doi-org.libproxy.troy.edu/10.1111/ppc.12494
- UCI Office of Research. (2019). *Assessing risks and benefits.* https://research.uci.edu/compliance/human-research-protections/irb-members/assessing-risks-and-benefits.html
- Wolters Kluwer. (2018). *Update on future of nursing report: Are we there yet?* http://lippincottsolutions.lww.com/blog.entry.html/2018/02/13/update_on_futureof-q5jh.html

USING EVIDENCE IN CLINICAL NURSING PRACTICE, 2ND EDITION

Self-Assessment Answers and Rationales

1. The correct answer is C.
Rationale: The nurse wants to research grief, which is a common human experience. Qualitative research is conducted to better understand the meaning of a human experience.

2. The correct answer is A
Rationale: Quality improvement (QI) is the formal, systematic analysis of data for monitoring and improving patient care.

3. The correct answer is B.
Rationale: The Iowa model focuses on identifying triggers, issues, or opportunities, stating the question or purpose, formation of interprofessional teams, reviewing evidence, critiquing, synthesizing, and change implementation through piloting.

- Identify and sustain practice change
- Outcomes dissemination.

4. The correct answer is A.
Rationale: The ARCC model emphasizes the importance of mentors and EBP for organizational effectiveness.

5. The correct answer is A.
Rationale: Neither the researchers nor the participants know the specific details of the experiment in a double-blind study. This type of study is used to safeguard against experimental bias.

6. The correct answer is C.
Rationale: Level II evidence is obtained from at least one well-designed RCT.

7. The correct answer is A.
Rationale: It is imperative that results are reported accurately, objectivity is maintained during analysis, and patients' rights and well-being are always protected.

8. The correct answer is C.
Rationale: Research should add to the body of nursing knowledge for enhancing patient outcomes.

9. The correct answer is D
Rationale: The IRB reviews studies to ensure that ethical standards are met for the protection of the rights of human participants.

10. The correct answer is D.
Rationale: Participating in and promote the delivery of continuing education about EBP and nursing research reducing barriers to EBP implementation.

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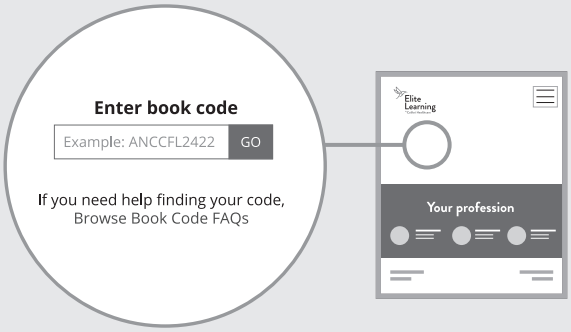

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2. The course content was unbiased and balanced.	8. I intend to apply the knowledge from this course to my practice.
3. The course was relevant to my practice.	9. What I have learned from this course will have an impact on my knowledge.
4. I would recommend this course to my peers.	10. What I have learned from this course will have an impact on patient outcome.
5. What I have learned from this course will have an impact on my practice.	11. The overall rating for this course.
6. The course was well-organized and clear.	

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	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
2	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
3	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
4	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
5	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
6	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
7	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
8	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
9	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
10	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	Excellent	Good	Average	Below Average	Poor	Excellent	Good	Average	Below Average	Poor	Excellent	Good	Average	Below Average	Poor
11	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
12	How many total hours did it take you to complete this course? Please indicate the number of hours: _____														
13	Please provide any additional feedback on this course: _____														

SECTION III: General

Fill in the circle below numbers **0=Not likely at all, 5=Neutral and 10=Extremely likely**

How likely is it that you would recommend Elite to a friend or colleague?..... 0 1 2 3 4 5 6 7 8 9 10

If your response is less than a 10, what about the course could we change to score a 10? _____

_____

List other topics that you would like to see provided: _____

❑ I agree to allow Elite to use my comments. If you agree, please provide your name and title as you would like to see them to appear.

_____

NURSING - COURSE EVALUATION (ANCCNC3023 - Required)

To receive continuing education credits for this program, this mandatory evaluation form must be completed.

Licensee Name: _____ **License #**_____

Your honest feedback is vital for the planning, evaluation, and design of future educational programs.

SECTION I: Demographics: Your current license type and education level: ❍LPN/LVN ❍RN - Associate degree ❍RN - Bachelor's degree ❍RN - Master's degree ❍APRN - Master's degree ❍Doctorate / DNP / Other Doctorate ❍Other (specify)_____

How long have your been a nurse: ❍Less than 5 years ❍6 to 10 years ❍11 to 15 years ❍16 to 20 years ❍Over 20 years ❍Not a nurse

SECTION II: Course Evaluation
Please complete the following for each course you have completed. Mark the circle that best matches your evaluation of the question.

1. After completing this course, I am able to meet each of the Learning Outcomes.	7. The course demonstrated the author's knowledge of the subject.
2. The course content was unbiased and balanced.	8. I intend to apply the knowledge from this course to my practice.
3. The course was relevant to my practice.	9. What I have learned from this course will have an impact on my knowledge.
4. I would recommend this course to my peers.	10. What I have learned from this course will have an impact on patient outcome.
5. What I have learned from this course will have an impact on my practice.	11. The overall rating for this course.
6. The course was well-organized and clear.	

	Diabetes Prevention and Management for Healthcare Professionals 5 Contact Hours					Ethical and Legal Issues in Nursing Practice 7 Contact Hours				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
2	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
3	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
4	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
5	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
6	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
7	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
8	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
9	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
10	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	Excellent	Good	Average	Below Average	Poor	Excellent	Good	Average	Below Average	Poor
11	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
12	How many total hours did it take you to complete this course? Please indicate the number of hours: _____									
13	Please provide any additional feedback on this course: _____									

SECTION III: General

Fill in the circle below numbers **0=Not likely at all, 5=Neutral and 10=Extremely likely**

How likely is it that you would recommend Elite to a friend or colleague?..... 0 1 2 3 4 5 6 7 8 9 10

If your response is less than a 10, what about the course could we change to score a 10? _____

_____

List other topics that you would like to see provided: _____

❑ I agree to allow Elite to use my comments. If you agree, please provide your name and title as you would like to see them to appear.

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How long have your been a nurse: ❍Less than 5 years ❍6 to 10 years ❍11 to 15 years ❍16 to 20 years ❍Over 20 years ❍Not a nurse

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4. I would recommend this course to my peers.	10. What I have learned from this course will have an impact on patient outcome.
5. What I have learned from this course will have an impact on my practice.	11. The overall rating for this course.
6. The course was well-organized and clear.	

	Management of Anxiety and Depression for Healthcare Professionals 3 Contact Hours					Using Evidence in Clinical Nursing Practice, 2nd Edition 3 Contact Hours				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
2	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
3	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
4	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
5	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
6	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
7	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
8	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
9	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
10	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	Excellent	Good	Average	Below Average	Poor	Excellent	Good	Average	Below Average	Poor
11	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
12	How many total hours did it take you to complete this course? Please indicate the number of hours: _____									
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