

KENTUCKY

Nursing Continuing Education



14 hours
\$34⁹⁵

COMPLETE
YOUR CE
NOW BEFORE
10/31/2023

Elite Learning's
STRESS-FREE SOLUTION
to completing your CE.
This book satisfies all your
requirements.

BUY NOW AND SAVE!



Accepted by your
state board and
ANCC accredited



We will report your hours
electronically to CEBroker
within one business day.

ELITELEARNING.COM/BOOK
Complete this book online with book code:

ANCCKY1423

Elite courses are rated

4.8/5 stars
★★★★★

WHAT'S INSIDE

Basic Psychiatric Concepts [6 contact hours] 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.	1
Management of Anxiety and Depression for Healthcare Professionals [3 contact hours] 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.	25
Recognizing the Warning Signs of Pediatric Headaches [3 contact hours] Nurses who work in both acute care and primary care settings will benefit from this course. It covers acute care, emergency care/red flags for infants, children, and adolescents with a headache, and prevention strategies and information about chronic, recurring headaches. A headache in a child may be benign or may signal a medical emergency. How can you tell the difference? What are signs and symptoms specific to infants, children, and adolescents? What in the history or physical exam is crucial to notice quickly and efficiently to provide the best care for a child? This course will explore recurrent headaches in children and adolescents, consider headache prevention strategies, describe the acute headache, and identify those with serious or life-threatening causes ("red flags"). The components of the pediatric history and neurological exam will be discussed. Various examples of primary headaches and secondary headaches will be described. After taking this course, the nurse will be able to identify red flags, describe signs and symptoms specific to children, and distinguish between different types of pediatric headaches. Nurses who are experienced in pediatrics or are completely new to the pediatric population will equally benefit from this course.	42
Rehabilitation of the Older Adult [2 contact hours] The purpose of this course is to discuss physiological aspects of aging that may contribute to functional limitations, identify special considerations for older adults in rehabilitation settings, identify goals of geriatric rehabilitation, describe nursing interventions that promote restorative care, describe the roles of the interprofessional team members in rehabilitation for the older adult, and list the benefits of physical activity in the older adult.	60
Course Participant Sheet	74



©2023: All Rights Reserved. Materials may not be reproduced without the expressed written permission or consent of Colibri Healthcare, LLC. The materials presented in this course are meant to provide the consumer with general information on the topics covered. The information provided was prepared by professionals with practical knowledge in the areas covered. It is not meant to provide medical, legal or professional services advice. Colibri Healthcare, LLC recommends that you consult a medical, legal or professional services expert licensed in your state. Colibri Healthcare, LLC has made all reasonable efforts to ensure that all content provided in this course is accurate and up to date at the time of printing, but does not represent or warrant that it will apply to your situation or circumstances and assumes no liability from reliance on these materials.

FREQUENTLY ASKED QUESTIONS

What are the requirements for license renewal?

Licenses Expire	Contact Hours	Mandatory
Licenses Expire October 31, every year	14 (All hours are allowed through home-study/online courses)	3 hours of Domestic Violence (One time requirement) 1.5 hours of Pediatric Abusive Head Trauma (One time requirement) 2 hours in Suicide Prevention (One time requirement) 1.5 hours in Implicit Bias (One time requirement)

How much will it cost?

Course Title	Contact Hours	Price
Basic Psychiatric Concepts	6	\$35.95
Management of Anxiety and Depression for Healthcare Professionals	3	\$23.95
Recognizing the Warning Signs of Pediatric Headaches	3	\$25.95
Rehabilitation of the Older Adult	2	\$18.95
Best Value - Save \$69.85 - All 24 Hours	14	\$34.95

How do I complete this course and receive my certificate of completion?

See the following page for step by step instructions to complete and receive your certificate.



Are you a Kentucky board-approved provider?

Yes, Colibri Healthcare, LLC is a board-registered provider of continuing education in Kentucky. Our provider number is 7-0076, expires 12/31/2023. The Kentucky Board of Nursing uses CE Broker (Provider #50-4007) to track and verify your compliance. Colibri Healthcare, LLC will report your hours electronically to CE Broker within one business day. Remember, do not forward your CE documentation to the board, keep your certificate in a safe place for your records.



Are my contact hours reported to the Kentucky board?

No, the board performs random audits at which time proof of continuing education must be provided.

What information do I need to provide for course completion and certificate issuance?

Please provide your license number on the test sheet to receive course credit. Your state may require additional information such as date of birth and/or last 4 of Social Security number; please provide these, if applicable.



Is my information secure?

Yes! We use SSL encryption, and we never share your information with third-parties. We are also rated A+ by the National Better Business Bureau.

Important information for licensees:

Always check your state's board website to determine the number of hours required for renewal, mandatory subjects (as these are subject to change), and the amount that may be completed through home-study. Also, make sure that you notify the board of any changes of address. It is important that your most current address is on file.



What if I still have questions? What are your business hours?

No problem, we have several options for you to choose from! Online at EliteLearning.com/Nursing you will see our robust FAQ section that answers many of your questions, simply click FAQs at the top of the page, e-mail us at office@elitelearning.com, or call us toll free at 1-866-344-0971, Monday - Friday 9:00 am - 6:00 pm, EST.



Licensing board contact information:

Kentucky Board of Nursing
312 Whittington Parkway, Suite 300 | Louisville, KY 40222
Phone (502) 429-3300 or 1(800) 305-2042 | Fax (502) 429-3311
Website: <https://kbn.ky.gov/>

How to complete continuing education

Please read these instructions before proceeding.

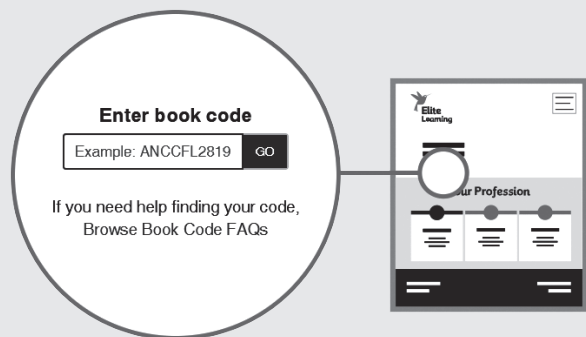
Read and study the enclosed courses and complete the self-assessment exercises. To receive credit for your courses, you must provide your customer information and complete the mandatory evaluation. We offer three ways for you to complete. Choose an option below to receive credit and your certificates of completion.

Fastest way to receive your certificate of completion



Online

- Go to **EliteLearning.com/Book**. Use the book code **ANCCKY1423** and enter it in the example box then click **GO**.
- If you already have an account created, sign in to your account with your username and password. If you do not have an account already created, you will need to create one now.
- Follow the online instructions to complete your affirmation. Complete the purchase process to receive course credit and your certificate of completion. Please remember to complete the online survey.



By mail

- Fill out the course participant sheet and evaluation found in the back of this booklet. Please include a check or credit card information and e-mail address. Mail to **Elite, PO Box 37, Ormond Beach, FL 32175**.
- Completions will be processed within 2 business days from the date it is received and certificates will be e-mailed to the address provided.
- Submissions without a valid e-mail will be mailed to the address provided.



By fax

- Fill out the course participant sheet and evaluation found in the back of this booklet. Please include credit card information and e-mail address. Fax to **(386) 673-3563**.
- All completions will be processed within 2 business days of receipt and certificates e-mailed to the address provided.
- Submissions without a valid e-mail will be mailed to the address provided.

Basic Psychiatric Concepts

6 Contact Hours

Release Date: September 28, 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.

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

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

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

It is the policy of Colibri Healthcare, LLC not to accept commercial support. Furthermore, commercial interests are prohibited from distributing or providing access to this activity to learners.

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.

©2023: All Rights Reserved. Materials may not be reproduced without the expressed written permission or consent of Colibri Healthcare, LLC. The materials presented in this course are meant to provide the consumer with general information on the topics covered. The information provided was prepared by professionals with practical knowledge of the areas covered. It is not meant to provide medical, legal, or professional advice. Colibri Healthcare, LLC recommends that you consult a medical, legal, or professional services expert licensed in your state. Colibri Healthcare, LLC has made all reasonable efforts to ensure that all content provided in this course is accurate and up to date at the time of printing, but does not represent or warrant that it will apply to your situation nor circumstances and assumes no liability from reliance on these materials. Quotes are collected from customer feedback surveys. The models are intended to be representative and not actual customers.

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

Aln 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/pmhnnp-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.

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

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).

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.

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

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.

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?

- Autonomy.
- Justice.
- Beneficence.
- 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%27naghten_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. NPAs 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 acculturation, 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.

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

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.

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

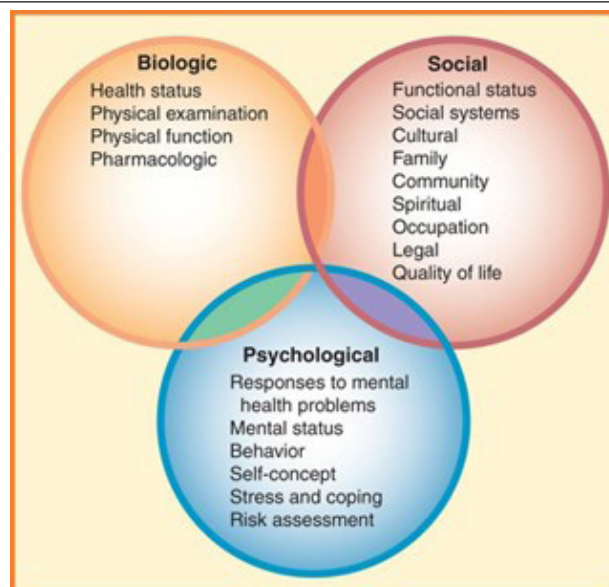
Most healthcare facilities have an existing form to guide the nurse in data collection. The data collection process assists the nurse in developing a nursing diagnosis list. After identifying real and potential problems, the nurse develops written nursing diagnoses to address each problem. Nursing diagnoses 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 "rappelicosity" 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?"). Rephrase 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/>)

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://easypublisher.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)

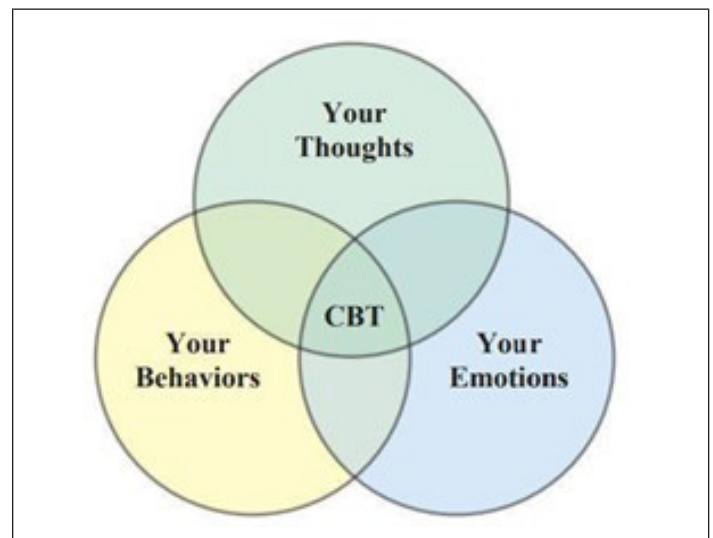
Cognitive-behavioral therapy (CBT), pioneered by Aaron Beck (1967) and Albert Ellis (1973), focused on the relationship between a patient's perceptions about events and the resultant feelings and behaviors. This cycle of thoughts that influence feelings and behaviors is demonstrated in this example:

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

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

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/fpsy.2021.714181/full>).

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.

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.

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).

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

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.

(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

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

(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)

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, Mahomed, & 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.

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

2. An understanding of the mental health exam is fundamental to the diagnosis and treatment of mental illness.

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/EthicsStandards/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/php/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/ccio/programs-and-initiatives/other-insurance-protections/mhpaea_factsheet.html
- Chen C, Zhan J, 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/mandata.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/>
- Emborg, 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_\(1965\)](https://www.law.cornell.edu/wex/griswold_v_connecticut_(1965)))
- Halter, M. J. (2018). Varcacolis' 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., Etner, 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. & 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:10.1177/09677721014533059
- 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. Evkall & V. K. Evkall (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., & Tipta, 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 (2016). 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).

Management of Anxiety and Depression for Healthcare Professionals

3 Contact Hours

Release Date: September 28, 2022

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

It is the policy of Colibri Healthcare, LLC not to accept commercial support. Furthermore, commercial interests are prohibited from distributing or providing access to this activity to learners.

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.

©2023: All Rights Reserved. Materials may not be reproduced without the expressed written permission or consent of Colibri Healthcare, LLC. The materials presented in this course are meant to provide the consumer with general information on the topics covered. The information provided was prepared by professionals with practical knowledge of the areas covered. It is not meant to provide medical, legal, or professional advice. Colibri Healthcare, LLC recommends that you consult a medical, legal, or professional services expert licensed in your state. Colibri Healthcare, LLC has made all reasonable efforts to ensure that all content provided in this course is accurate and up to date at the time of printing, but does not represent or warrant that it will apply to your situation nor circumstances and assumes no liability from reliance on these materials. Quotes are collected from customer feedback surveys. The models are intended to be representative and not actual customers.

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	<ul style="list-style-type: none">Seemingly heightened sensory inputIncreased alertnessAttentiveSlight muscle tension	<ul style="list-style-type: none">Logical problem-solving skillsAble to achieve and succeed in specific tasksCan solve problem that is causing anxiety
2. Moderate	<ul style="list-style-type: none">Narrowed perceptionMisperception of stimuliReduced ability to communicateDifficulty in concentratingIncreased nervousness and tensionModerate muscle tensionIncreased pulse, blood pressure, and respiration	<ul style="list-style-type: none">Some coping skills are still functionalCan follow directionsWith some help, the anxiety can be dealt with successfully
3. Severe	<ul style="list-style-type: none">Narrowed perceptual fieldDistorted perceptionsDisorientedFocused on the short termShortened attention spanPhysical discomfort, if present, adding to a sense of emotional discomfortDelusions with hallucinations if anxiety is prolongedExtreme muscle tension	<ul style="list-style-type: none">Ineffective reasoningIneffective problem-solving skillsDifficulty 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	<ul style="list-style-type: none"> Disorganized perceptions Feelings of being overwhelmed, being out of control, and terror Unfocused, random, fleeting, irrational, and incoherent thoughts Severe cognitive impairment 	<ul style="list-style-type: none"> 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?

- "It sounds like this interview must be very important to you."
- "Where is your interview?"
- "Oh, I don't think you will mess it up."
- "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?

- Mild.
- Moderate.
- Severe.
- 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 adrenocorticotrophic 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

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.

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.

- Restlessness
- Tachypnea
- Trembling
- Voice tremors

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.

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 <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• 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	<ol style="list-style-type: none">1. Assess level of anxiety.2. Establish therapeutic relationship.3. Offer appropriate interventions on the basis of level of anxiety.<ul style="list-style-type: none">• Mild anxiety: Listen to the patient and redirect activities.• Moderate anxiety:<ul style="list-style-type: none">○ 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	<ul style="list-style-type: none">• Neoplasms• Stroke• Multiple sclerosis• Infection• Trauma• Migraine• Parkinson's disease• Epilepsy• Alzheimer's disease
Endocrine Disorders	<ul style="list-style-type: none">• Adrenal disorders• Thyroid disorders• Menses-related disorders• Postpartum disorders
Infectious and Inflammatory Disorders	<ul style="list-style-type: none">• Chronic fatigue syndrome• Pneumonia• AIDS• Tuberculosis• Rheumatoid arthritis
Other Medical Disorders	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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. <i>Jama Network</i> . 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: <ul style="list-style-type: none">• "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: <ul style="list-style-type: none">• 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: <ul style="list-style-type: none">• 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

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

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

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

combination of some form of psychotherapy and psychotropic medication is the preferred treatment.

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.

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 (Eptol, 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.

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

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,

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.

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. (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-psy.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., & Dokuc, 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-stims/home/ovc-20163795>.
- Mayo Clinic. (2020). *Anxiety disorders*. <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*. <http://nccih.nih.gov/health/anxiety>.
- National Center for Complementary and Integrative Health. (2017). *Relaxation techniques for health*. <http://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 Psychiatry*, 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

MANAGEMENT OF ANXIETY AND DEPRESSION FOR HEALTHCARE PROFESSIONALS

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.

Recognizing the Warning Signs of Pediatric Headaches

3 Contact Hours

Release Date: December 5, 2021

Expiration Date: October 19, 2024

Faculty

Margaret Hughes, MSN, RN, CPNP-PC, PMHNP-BC, is a dual-certified pediatric and psychiatric-mental health nurse practitioner who graduated from both the Yale School of Nursing in 2016 and Northeastern University in 2021. She currently works in student health at a large university in Boston and sees psychiatric patients at an outpatient clinic. Previously, she worked at community-based and school-based health centers

providing primary care to high-risk, medically underserved populations. She also has experience as a registered nurse and has worked at a private pediatric clinic in Connecticut and at an overnight summer camp in New York.

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

Course overview

Nurses who work in both acute care and primary care settings will benefit from this course. It covers acute care, emergency care/red flags for infants, children, and adolescents with a headache, and prevention strategies and information about chronic, recurring headaches. A headache in a child may be benign or may signal a medical emergency. How can you tell the difference? What are signs and symptoms specific to infants, children, and adolescents? What in the history or physical exam is crucial to notice quickly and efficiently to provide the best care for a child?

This course will explore recurrent headaches in children and adolescents, consider headache prevention strategies, describe the acute headache, and identify those with serious or life-threatening causes ("red flags"). The components of the pediatric history and neurological exam will be discussed. Various examples of primary headaches and secondary headaches will be described. After taking this course, the nurse will be able to identify red flags, describe signs and symptoms specific to children, and distinguish between different types of pediatric headaches. Nurses who are experienced in pediatrics or are completely new to the pediatric population will equally benefit from this course.

Learning objectives

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

- Describe the characteristics, signs and symptoms, assessment, and management of different types of headaches in children.
- Distinguish between primary and secondary headaches, as well as acute and chronic headaches.
- Identify red flags in clinical presentation and history taking of a child with a headache.
- Describe differences in how young children and adults present with headaches.

- Explain the importance of good history taking with both parent and child.
- Describe various etiologies for headaches, including those caused by illness, acute brain injuries, or head trauma.
- Identify ways to educate parents and children regarding headaches to promote headache prevention, decrease headache frequency, reduce the risk of falling and head trauma, and allow children and adolescents to help manage their own headache care through the incorporation of patient education into the nurse's practice.

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.

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

©2023: All Rights Reserved. Materials may not be reproduced without the expressed written permission or consent of Colibri Healthcare, LLC. The materials presented in this course are meant to provide the consumer with general information on the topics covered. The information provided was prepared by professionals with practical knowledge of the areas covered. It is not meant to provide medical, legal, or professional advice. Colibri Healthcare, LLC recommends that you consult a medical, legal, or professional services expert licensed in your state. Colibri Healthcare, LLC has made all reasonable efforts to ensure that all content provided in this course is accurate and up to date at the time of printing, but does not represent or warrant that it will apply to your situation nor circumstances and assumes no liability from reliance on these materials. Quotes are collected from customer feedback surveys. The models are intended to be representative and not actual customers.

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

Sponsorship/commercial support and non-endorsement

It is the policy of Colibri Healthcare, LLC not to accept commercial support. Furthermore, commercial interests are prohibited from distributing or providing access to this activity to learners.

to diagnostic and treatment options of a specific patient's medical condition.

No. 241, every reasonable effort has been made to ensure that the content in this course is balanced and unbiased.

INTRODUCTION

A headache is one of the most common medical complaints in the pediatric population. Up to 90% of children will experience a headache by age 18 (Bonthius & Hershey, 2021). Although fewer than 3% of headaches are caused by brain tumors or other serious medical conditions, it is important to take a thorough history and perform a neurological exam for children who complain of headaches (Cleveland Clinic, 2017b). An acute or changing headache may indicate an emergency or serious health concern. It is important that the nurse caring for an infant, child, or adolescent recognizes the red flags of headaches that indicate

a serious medical condition requiring urgent intervention. An understanding of the components of the neurological exam, as well as the differences in findings depending on the child's age, is essential. Chronic headaches such as migraines and tension headaches may cause a lower quality of life and negatively affect academic and social development. The impact of headaches on a child's life is comparable to that of cancer, heart disease, and rheumatic disease (Kacperski, Kabbouchr, O'Brien, & Weberding, 2016).

PEDIATRIC HEADACHES: INCIDENCE AND ETIOLOGY

Headaches affect approximately 60% of children and adolescents worldwide (Bonthius & Hershey, 2021). The average age of onset of headaches is 7 years old for boys and 10 years for girls (Johns Hopkins Medicine, 2019). By age 17, approximately 5% of all children and adolescents have had migraines, and 15% have had tension-type headaches (Cleveland Clinic, 2017b). The prevalence of headaches increases with age from 4.5% between ages 4 and 6 years to 27% among adolescents aged 16 to 18 years (Bonthius & Hershey, 2021). Before age 12, the prevalence of headaches is similar in boys and girls. After age 12, there is a higher incidence in pubertal girls because of hormonal fluctuations related to the menstrual cycle (Bonthius & Hershey, 2021).

There are several factors that may explain the pathophysiology of headaches. It used to be thought that headaches were a result

of muscle contractions in the head causing vasoconstriction and ischemia; however, this is no longer an important cause of headaches (O'Brien, 2021). Now, headaches are believed to be related to an individual's susceptibility to pain, which is influenced by both genetics and gender and may be triggered by stress or emotion (O'Brien, 2021).

Migraines are thought to be caused by various environmental and genetic factors. The mechanism of migraines appears to be a neuronal dysfunction that leads to increased sensitivity to environmental stimuli (Gelfand, 2021). Approximately 90% of children with migraines have one or more parents with a history of migraines (Migraine Research Foundation, 2021). However, despite the strong evidence that migraines can be hereditary, no specific genes have been identified (Gelfand, 2021).

HEADACHE ASSESSMENT: KEY COMPONENTS OF A PEDIATRIC HEADACHE HISTORY

A detailed headache history from the patient, including family migraine history, must be obtained. Ideally, the history should be elicited from the child's reporting and should include age of onset, frequency of headache, temporal pattern, headache location, and duration (Kelly, Strelzik, Landon, & DiSabella, 2018).

The following information should be gathered when taking a history (Cleveland Clinic, 2017b):

- How and when the headaches started.
- Headache characteristics:
 - Location of pain.
 - How often the headache occurs and how long it lasts.

- Pain description (dull, throbbing) and pain score from 0 to 10.
- If headaches appear suddenly without warning or with other symptoms.
- What time of day the headache occurs.
- Presence of aura before the headache.
- What other symptoms are present (nausea, decreased appetite, sensitivity to light or noise, weakness, vision change, loss of consciousness) and what symptoms occur between headaches.
- Alleviating and aggravating factors (certain foods, lack of sleep, activities, medications).
- If physical activity aggravates the headache.

- Family history of headaches.
- School performance: Consider a child's grades and school absenteeism.
- Current or past history of substance use.

When assessing how a headache affects a child's daily life, a provider can administer the Pediatric Migraine Disability score, or PedMIDAS (Kelly et al., 2018). The PedMIDAS has been tested and validated for ages 4 to 18 years old (Kelly et al., 2018). The PedMIDAS tool uses six questions, three evaluating participation in events outside of school and three addressing school attendance and functioning and asks about the child's previous 3 months (Kelly et al., 2018).

NEUROLOGICAL EXAM

Following are key components of the pediatric neurological assessment (Kotagal, 2019):

- Fontanels (less than 18 months old): closure of the anterior fontanel by 18 months of age; posterior fontanel closes by 6 weeks to 2 months of age.
- Level of alertness or consciousness. (See below "Neurological exam: Pediatric Glasgow Coma Scale.")

- Motor function.
- Sensory function.
- Cranial nerves I-XII.
- Deep tendon reflexes.
- Superficial reflexes.
- Coordination.
- Balance and gait.

Neurological exam: Pediatric Glasgow Coma Scale

The Glasgow Coma Scale is used to determine the level of consciousness of the child. The adapted GCS assesses three major areas: eye opening, verbal ability, and motor ability. It can help determine the severity of a head injury (Brazelton & Gosain, 2020). The severity of head injury is based on the following scores (Brazelton & Gosain, 2020):

EYE OPENING	
Spontaneous eye opening.	4
Opens eyes to loud noise (birth to 1 year old); to verbal command (over 1 year old).	3
Opens eyes to pain.	2
No response.	1
MOTOR RESPONSE	
Spontaneous responses (birth to 1 year old); obeys (over 1 year old).	6
Localizes pain.	5
Withdrawal to pain.	4
Involuntary flexion.	3
Involuntary extension.	2
No response.	1

VERBAL RESPONSE	
Cries as a response, vocalizes (birth to 2 years); purposeful words (2 to 5 years); oriented and responds (older than 5 years).	5
Cries (birth to 2 years); incoherent words (2 to 5 years); disoriented and converses (older than 5 years).	4
Inappropriate crying (birth to 2 years); cries or screams (2 to 5 years); inappropriate words (older than 5 years).	3
Grunts (birth to 2 years); grunts (2 to 5 years); incomprehensible words (older than 5 years).	2
No response.	1
13 to 15 = Mild 9 to 12 = Moderate 8 or lower = Severe	

Self-Assessment Quiz Question #1

An 8-year-old girl presents to you in the emergency room after falling head-first on the playground from the swings onto a patch of grass from a height of 3 feet. What score on the Pediatric Glasgow Coma Scale would you give her if she has spontaneous eye opening, obeys motor response commands, is oriented to time and place, and responds verbally?

- Score of 13: a mild head injury.
- Score of 15: a possible mild head injury.
- Score of 7: a severe head injury.
- Score of 10: a moderate head injury

Neurological exam: Cranial Nerves

CNI: Olfactory

- **Infants:** Pass strong smelling substance (cloves, peppermint) under the nose. Observe for sniffing, grimace, startle response.
- **Children and adolescents:** Pass strong smelling substance (cloves, peppermint) under the nose

CNII: Optic

- **Newborn and infants:** Light source, ophthalmoscope, on medium or large aperture. Pupils constrict in response to light; the infant can fix on object and follow it.
- **Children and adolescents:** Allen vision cards, Snellen chart for visual acuity testing; test peripheral vision fields; assess

pupillary light response; perform a funduscopy exam to assess the optic disc.

CNIII (Oculomotor), IV (Trochlear), and VI (Abducens)

- **Newborn and infants:** Shine penlight toward pupil and elicit pupillary response to test optic nerve. Evaluate shape, size, symmetry, and spontaneous movements of pupil. Use doll's eye test. Rotate the head and body from side to side and observe the eyes. Eyes should deviate left when turning head right. If eyes remain fixed or do not track in the opposite direction, there is a possible brainstem dysfunction.
- **Children and adolescents:** Use light source, ophthalmoscope, to test direct and consensual pupillary response to light. Have the child follow a light source or

index finger through the six cardinal fields of gaze to test eye movement.

CNV: Trigeminal

- **Newborn and infants:** Touch the infant's cheek area; infant turns cheek toward the touch stimulus. Test jaw muscles by placing gloved finger in infant's mouth. Infant should bite down and begin sucking.
- **Children and adolescents:** Touch the child's facial area with a cotton swab and observe the child move away from the stimulus; observe the child chewing and swallowing to test jaw strength.

CNVII: Facial

- **Newborn and infants:** Observe when crying and observe infant's face for symmetry of facial movements; asymmetrical nasolabial folds and asymmetrical facial expression is abnormal.
- **Children and adolescents:** Ask the child to frown, smile, and puff cheeks and observe for symmetrical facial expressions.

CNVIII: Acoustic

- **Newborn and infants:** Ring a bell sharply within a few inches of the infant's ears with the infant lying supine and observe for a response to the sound stimulus. A response could be a mild startle or blink reflex.
- **Children and adolescents:** Perform audiometric testing to evaluate range of hearing.

Neurological exam: Pediatric evaluation of cerebellar function

Cerebellar function evaluates balance, muscle tone, and coordination (Stanford Medicine, 2019). Abnormalities in coordination and balance may prompt evaluation for cerebellar disease (Stanford Medicine, 2019). Failure to perform any of these tests normally requires further evaluation (Stanford Medicine, 2019):

- **Romberg test (preschool age and older):** Assesses balance and equilibrium. Observe the child's balance for several seconds while they stand with their eyes closed. Cerebellum lesions can cause the child to stagger or fall.
- **Finger-to-thumb test (school age and older):** Assesses cerebellar function, coordination, and cognitive processing disorders. Child touches each finger to the thumb in rapid succession.
- **Hopping in place (4 years and older):** Tests for balance, cerebellar function, spatial sense, and intact motor function. Child hops on one foot and then hops on the other foot.
- **Heel-to-toe walking or tandem walking (6 years and older):** Assesses balance and coordination. Child walks heel to toe in a straight line. Requires a high level of

CNIX and CNX: Glossopharyngeal and Vagus

- **Newborn and infants:** Use a tongue blade to apply pressure on the midtongue area to overcome tongue thrust. Observe tongue movement and strength; elicit gag reflex. Evaluate the pitch of the cry and assess for hoarseness or stridor. A normal cry is loud and angry. A shrill, penetrating cry could indicate intracranial hemorrhage. A whiny, high-pitched cry indicates central nervous system dysfunction.
- **Children and adolescents:** Observe tongue strength and movement and elicit gag reflex with tongue blade. Normally, a child is able to swallow without difficulty, and voice quality and sound is normal and intact.

CNXI: Accessory

- **Newborn and infants:** Turn the infant's head to one side with the infant lying supine. The infant should work to bring the head to midline.
- **Children and adolescents:** Have the child shrug their shoulders to assess trapezius muscle strength, and a child can turn their head from side to side against resistance.

CNXII: Hypoglossal

- **Newborn and infants:** Observe infant when feeding; sucking, swallowing should be coordinated.
- **Children and adolescents:** Have the child stick their tongue out and push their tongue against a tongue blade.

(CN; Kotagal, 2019)

neuromuscular coordination and is usually not possible until age 6 years.

- **Rapid alternating movements test (8 years and older):** Assesses for cerebellar function, cognitive processing disorders, and coordination. Failure may indicate cognitive or behavioral dysfunction. The child places their hands palm down on the thighs and then flips both hands palm up and back palm down quickly in rapid rhythmic movement.
- **Finger-to-nose test (8 years and older):** Assesses dysfunction in spatial perception and coordination. Failure may indicate dysfunction in spatial perception and coordination. The child touches their nose and then touches the finger of the examiner about 18 inches in front of them quickly, from their nose to the examiner's finger, back to their nose, and so on.
- **Heel-to-shin test (school age and older):** Assesses coordination and balance. Failure may indicate a cerebellar lesion, an alteration in proprioception, or decreased motor strength. The child slides one heel from the opposite knee down the shin to the foot and repeats on the opposite side.

RED FLAGS WITH HEADACHES

Although most headaches in children and adolescents are not the result of a serious illness, it is important to know the red flags of when to worry about a child's headache.

Red flag symptoms that warrant an immediate referral

The following red flags should prompt further evaluation (Garza & Schwedt 2020b; Saladino, 2019):

- Headaches that follow injuries or trauma.
- Headaches with seizures, fainting episodes, neurological symptoms, fevers and a stiff neck, personality changes.
- A thunderclap headache described as the "worst headache ever."
- Worsening headaches and increased frequency of headaches.
- Headaches with early morning vomiting (without nausea).
- Headaches that wake the child from sleep.

Red flags from the child's physical exam

A more serious problem should be considered when the child's physical exam reveals any of the following (O'Brien, 2021):

- More than six coffee-colored spots on the skin indicating a sign and symptom of neurofibromatosis 1 (NF1).

- Headaches that occur early in the morning.
- Headaches that worsen with lying down or with Valsalva.
- Neurologic symptoms or signs: altered mental status, papilledema, abnormal eye movements, other abnormalities, or asymmetries.
- Secondary risk factors: immunosuppression, hypercoagulable state, neurocutaneous disorder, cancer, genetic disorder, rheumatologic disorder.
- Systemic symptoms: fever, weight loss, rash, joint pains.
- Increased headache with straining, coughing, or sneezing.

- A noise or bruit in the head heard auscultated by a stethoscope.

- Growth abnormalities: increased head circumference, short stature or deceleration of linear growth, abnormal pubertal progression, obesity.
- Inflammation of the optic nerve, the nerve in the back of the eye (papilledema). or retinal hemorrhages.
- Abnormalities of blood pressure, pulse, breathing, or temperature.
- Uncooperative during physical examination.
- Lethargy: being indifferent, apathetic, or sluggish, or sleeping too much.

Red flags: Intracranial cause

If there is a suspected intracranial etiology, immediate referral to an emergency department for further neurological evaluation is required. Critical indicators of possible intracranial cause include the following (Bonthius & Hershey, 2021; Tasker, 2020):

- Depressed level of consciousness.
- Behavior or personality change.
- Gait abnormalities.
- Evidence of cranial trauma, including blood in or behind ear.
- Split sutures.
- Papilledema or retinal hemorrhages.
- Hypertension with bradycardia or tachycardia.
- Focal neurologic signs.

Red flags following a head trauma, fall, or injury

Hospital observation may be required for the following (Shutzman, 2020):

- Caregiver concern that child is not acting normally.
- Lethargy, confusion, seizure.
- More than momentary loss of consciousness.
- Severe or worsening headache.
- Focal neurologic abnormality.
- Scalp abnormalities such as hematoma or skull depression.

Red flag mnemonic: SNOOP

S-N-O-O-P is a guideline for identifying an emergency headache (Smith, 2018):

S = Secondary or systemic symptoms

- If the child has secondary issues that might cause a headache such as a history of HIV/AIDS or a history of cancer.
- If the headache is accompanied by fever, nausea, vomiting, or weight loss.
- This could be a sign of a secondary problem such as a brain tumor or meningitis.

N = Neurologic symptoms

- Nausea and vomiting.
- Vision issues: If visual symptoms such as seeing flashing lights, or a loss of vision come on suddenly or they do not go away after the headache is gone.
- Inability to speak.
- Weakness in one part of the body or another, especially on one side.

Diagnostic tests

Diagnostic tests are unnecessary unless the history and physical exam suggest intracranial etiology such as infection, bleeding, or tumors. If an intracranial etiology is suspected, then a CT, MRI, or lumbar puncture may be required (Saladino, 2019). Obtaining neuroimaging studies on a routine basis is not indicated in children with recurrent headaches and a normal neurologic exam (Gelfand, 2021). The benefit of neuroimaging in headaches with no worrisome features, normal neurological exam, and normal fundoscopic exam for underlying pathologies in children is low (less than 0.4%; Saladino, 2019).

Neuroimaging should be considered for children with recurrent headaches who also have any of the following problems (Gelfand, 2021; Saladino, 2019):

- Seizures.
- Significant alteration of consciousness.

- Vision changes: blurry vision, double vision, or blind spots.
- Personality changes, inappropriate behavior.
- Mental confusion.
- Speech difficulties.
- Nuchal rigidity.
- Sudden loss of balance or falling.
- Weakness.
- Signs of trauma.

- Meningismus: symptoms suggestive of meningitis, stiff neck.
- Cranial bruits.
- Severe occipital headache.
- Short or paroxysmal headache, thunderclap headache.
- Exacerbated by straining, sneezing, defecating, or coughing.
- Awakens child from sleep.
- Exacerbated or improved markedly by position changes.
- Associated with projectile vomiting or vomiting without nausea.
- Change in quality, severity, frequency, or pattern.
- Recurrent localized headache.

- Bulging anterior fontanelle in infants.
- Vomiting. A child who suffered from a high-risk mechanism of injury such as a fall from greater than 3 feet, head struck by a high-impact object, significant motor vehicle collision, concern for child abuse, or unknown mechanism.
- Pre-existing conditions that place the child at risk for intracranial hemorrhage, such as arteriovenous malformation or a bleeding disorder.

- Severe numbness.

O = Onset

- If the onset of the headache is like a thunderclap, which is sudden and often lasts less than 1 second.
- If the child is fine one moment and suddenly feels like they have been hit with a shovel out of nowhere.

O = Older

(This letter of the mnemonic applies to patients over the age of 50 who have a sudden, uncharacteristic headache, not intended for pediatric patients.)

P = Previous history

- If the child has a previous history of headaches and the child or parent knows what the child's typical headache is like, then this is a new, more severe, and sudden headache than the child has ever had before.

- Signs of increased intracranial pressure, including headaches worsening with lying down and with vomiting.
- Focal findings.
- Abnormal neurologic examination.
- Recent onset of a severe headache.
- Thunderclap headache, especially with neck pain or stiffness.
- A change in the type of headache.
- Rapidly increasing headache frequency.
- History of lack of coordination.
- History of headache causing awakening from sleep, although this can also occur in migraine headaches.
- Associated features that suggest neurologic dysfunction.

Classification of headaches

The International Classification of Headache Disorders (ICHD)-3 is used for the classification of headaches. Headaches in children can be divided into primary headaches or secondary headaches.

PRIMARY HEADACHES

Primary headaches are self-limited, are not caused by another medical condition, and are diagnosed based on their symptoms and patterns (Saladino, 2019). Primary headache disorders comprise 90% of all headaches in children and represent one of the most common diseases in childhood.

There are three types of primary headaches (Saladino, 2019):

1. Tension-type headaches.
2. Migraines.
3. Cluster headaches.

Tension-type headaches and migraine are the most frequent types of headaches in children and adolescents (Saladino, 2019).

Tension-type headaches

Tension-type headaches (TTHs), also known as chronic nonprogressive headaches, are daily or frequent headaches, or headaches that come and go over an extended period without causing neurological symptoms (Cleveland Clinic, 2021). TTHs typically occur more often during periods of increased stress (O'Brien, 2021). The underlying pathophysiology of TTHs is thought to be because of a pain susceptibility from genetics and sex that involves both central and peripheral nervous systems (O'Brien, 2021).

Prevalence and epidemiology

The prevalence of TTHs is approximately 30% in the pediatric population (O'Brien, 2021). TTHs can develop in children under age 6; however, the prevalence increases with age and affects more girls than boys (O'Brien, 2021). TTH is the most common type of headache among adolescents and is two to three times more common than migraines (O'Brien, 2021).

Triggers

Common triggers of TTHs in children and adolescents include the following (Cleveland Clinic, 2021):

- Sleep problems such as insomnia.
- Emotional stress related to family, school, or friends.
- Eye strain.
- Pain in other parts of head or neck caused by temporomandibular disorders, for example.

Signs and symptoms

TTH is described as a sense of continuous bifrontal head pressure, is less painful than a migraine, and may include lightheadedness, fatigue, photophobia (sensitivity to light), or phonophobia (sensitivity to sound; O'Brien, 2021).

The following are criteria and characteristics for TTHs (O'Brien, 2021):

- The ICHD-3 criteria for TTHs are defined as headaches with at least two of the following characteristics:
 - Bilateral location.
 - Pressing or tightening quality, often described as "a band around the head."
 - Not aggravated by routine physical activity.
 - Mild to moderate intensity.
- The criteria must also include both of the following:
 - No nausea or vomiting.
 - May have either photophobia or phonophobia, but not both.
- There are no auras with TTHs.
- Duration of headache is 30 minutes to 7 days.
- TTHs may be classified as:
 - **Infrequent episodic:** fewer than 1 day per month, occurring fewer than 12 days per year.
 - **Frequent episodic:** 1 to 4 days per month, occurring more than 12 and fewer than 180 days per year.
 - **Chronic:** 15 or more days per month or more than 180 days per year.

Migraine headaches

Migraine headaches are also a common primary headache in children and adolescents (Gelfand, 2021). They are typically characterized as a throbbing headache that may be accompanied by sensitivity to light or noise, nausea, vomiting, or movement sensitivity (Gelfand, 2021). Migraines can be disabling and can cause poor quality of life. Migraine is the cause of 130,000 absent school days every 2 weeks among children and adolescents (Tricarico, 2017).

Prevalence

Migraine is among the most common chronic conditions, with an estimated prevalence of 10% to 28% among adolescents and children (Cleveland Clinic, 2017b). The prevalence of migraine increases with age from 3% in preschool years, to 4% to 11% in elementary school years, and to 8% to 15% during high school years (Cleveland Clinic, 2017b). Before puberty, migraines are seen in more boys than girls (Cleveland Clinic, 2017b). After puberty, migraines affect girls more often than boys because of hormonal changes associated with the menstrual cycle (Cleveland Clinic, 2017a). Children from low socioeconomic status are more likely to have chronic migraines than children from privileged backgrounds (American Migraine Foundation, 2019).

Pathophysiology

Until recently, migraines were theorized to be vascular and associated with changes in the size of the arteries within the brain (Gelfand, 2021). However, this popular theory has been discredited and migraines are now thought to be caused by a brain malfunction in which chemicals, most notably serotonin,

are released leading to increased sensitivity to stimuli (Cleveland Clinic, 2017b; Gelfand, 2021).

Nursing consideration: When taking the history of the child with a headache, nurses should ask if there are relatives with a history of migraines, as there is a genetic component associated with migraines. It is still important to rule out other underlying medical reasons for the headaches by taking a thorough history and performing a thorough neurological exam.

Triggers

Migraines may be caused by various factors including the following (Cleveland Clinic, 2017b):

- Emotional stress, which is the most common migraine trigger.
- Normal hormonal changes associated with menstrual cycles and ovulation.
- Skipping meals, which can lower the body's blood sugar and cause migraines.
- Other diet-related triggers are aged cheeses, pizza, luncheon meats, sausages, hot dogs, chocolate, and foods containing MSG.
- Excessive caffeine consumption or withdrawal.
- Weather changes such as strong winds, barometric pressure changes, storm fronts, or changes in altitude.
- ADHD stimulant medications and oral contraceptives (side effect).
- Personal routine changes such as illness, travel, riding in a car, and lack of sleep.

- Loud noises, bright light, excessive physical activity, too much sunlight, depression, and anxiety.

Signs and symptoms

Migraines without aura are the most frequent type of migraine in children and adolescents and comprise about 60% to 85% of all migraines (Cleveland Clinic, 2017b). Migraines with aura are less frequent in children and represent about 15% to 30% of all migraines in children (Cleveland Clinic, 2017b). In young children, migraines often begin in the late afternoon and change to early morning as the child gets older (Cleveland Clinic, 2017b).

Many younger children do not present with the classic symptoms of adult migraines. Classic adult symptoms are headaches that are usually unilateral and pulsating and may be associated with autonomous symptoms such as photophobia, phonophobia, or nausea (Gelfand, 2021). In children and adolescents, the pain usually affects the front or both sides of the head and lasts 2 to 72 hours, whereas in adults, the pain usually affects one side of the head and may last 4 to 72 hours (American Migraine Foundation, 2021).

The following cranial autonomic symptoms occur in 70% of children and adolescents with migraine:

- A sense of aural fullness.
- Facial sweating and flushing.
- Lacrimation.
- Conjunctival injection.
- Ptosis or miosis.
- Nasal congestion or rhinorrhea.
- Periorbital edema.

As some of the above symptoms are very similar to sinus headaches, this is one of most common misdiagnoses given to individuals with migraines.

What is an aura?

An aura is a focal cerebral dysfunction that typically precedes migraines (Robertson, 2019). Auras usually occur about 10 to 30 minutes before the onset of a migraine and last between 5 and 60 minutes (Gelfand, 2021). Auras may be visual, motor, sensory, language, brainstem-type, and retinal (Gelfand, 2021).

The most common auras in children are visual (Robertson, 2019):

- Blurred or distorted vision.
- Zigzag lines, scintillations, black dots.
- Blind spots.
- Distortion of size.
- Brightly colored, flashing, or moving lights or lines.

A sensory aura may include tingling or numbness in a limb or on one side of the face (Gelfand, 2021). A language aura may range from wording difficulties to frank dysphagia (Gelfand, 2021). A motor aura causes weakness in extremities or one side of the face (Gelfand, 2021).

In females with migraines with auras, the risk of stroke is slightly elevated (Gelfand, 2021). Because estrogen-containing contraceptives also increase the risk of stroke, they are contraindicated in any female with a history of migraine with auras (Gelfand, 2021).

Self-Assessment Quiz Question #2

An “aura” is defined as:

- A type of headache tracking device.
- A warning sign that a migraine is about to begin.
- A sign that a migraine is over.
- A type of head injury.

Diagnosis and stages of migraines

The following are the stages of migraines:

1. Premonitory phase (Prodrome)

Both migraines with and without aura have a premonitory phase; however, the symptoms are more pronounced in migraines with aura (Robertson, 2019).

The most common symptoms that appear hours or days before onset of a migraine include the following (Gelfand, 2021; Robertson, 2019):

- Fatigue.
- Irritability.
- Elation or sadness.
- Talkativeness.
- Social withdrawal.
- Increased or decreased appetite.
- Food craving or anorexia.
- Sleep disturbances.
- Increased yawning.
- Urinary or bowel changes.

One pediatric study noted that 67% of participants showed at least one of these symptoms (Gelfand, 2021).

2. Migraine headache phase

The ICHD-3 requires the following diagnostic criteria for migraines without aura (Gelfand, 2021):

- At least five headaches lasting 2 to 72 hours with at least two of the following characteristics:
 - Moderate to severe headache.
 - Aggravation by or causing avoidance of routine physical activity.
 - Pulsing or throbbing quality.
 - Unilateral, bifrontal, or bitemporal pain.
- And with at least one of the following:
 - Nausea or vomiting.
 - Phonophobia and photophobia.

The ICHD-3 requires the following diagnostic criteria for migraines with aura (Gelfand, 2021):

- At least two headaches with the following:
 - One or more aura symptoms: visual, sensory, speech or language, motor, brainstem, retinal.
- At least 3 of the following:
 - At least one aura symptom spreads gradually over more than 5 minutes.
 - Two or more symptoms occur in succession.
 - Each aura lasts 5 to 60 minutes.
 - At least one aura symptom is unilateral.
 - At least one aura symptom is positive (tingling or scintillations).
 - The aura is accompanied or followed by a headache within 60 minutes.

3. Migraine postdrome phase

After a migraine, individuals may feel drained and exhausted or elated and energized (Robertson, 2018). They may also experience thirst, somnolence, vision changes, food craving, paresthesia, and ocular pain (Gelfand, 2021).

Complicated migraine syndromes and migraine variants in children and adolescents

Complicated migraines are associated with the following neurological symptoms (Cleveland Clinic, 2017b):

- **Confusional migraine:** A temporary period of confusion often initiated by minor head injury.
- **Basilar migraine:** Pain at the base of the skull with numbness, tingling, visual changes, and balance difficulties.
- **Ophthalmoplegic migraine:** Paralysis or weakness of eye muscles.
- **Hemiplegic migraine:** A stroke-like weakness on one side of the body.

Migraine variants are syndromes in which symptoms appear and disappear after some time. These include the following (Cleveland Clinic, 2017b):

- **Cyclic vomiting:** Uncontrolled vomiting that happens repeatedly every 60 to 90 days.
- **Paroxysmal torticollis:** Sudden contraction of one side of the neck muscles that causes the head to lean to one side.
- **Paroxysmal vertigo:** Dizziness and vertigo that is brief and intense.

- **Abdominal migraine:** Pain near the belly button with vomiting that lasts 1 to 2 hours: No headache is present.

Migraine prognosis

Migraines can resolve as soon as 1 year after they first appear or they may remain for life. Approximately 60% of adolescent-onset migraines continue off and on for many years (Cleveland Clinic, 2017b). About 50% of children and adolescents report migraine improvement within 6 months after treatment (Cleveland Clinic, 2017b).

Cluster headaches

Cluster headaches are usually located on one side of the head, can be severely painful, last less than 3 hours, and can occur as a "cluster" over a short period (Bonthius & Hershey, 2021). Headaches range from every other day to 8 headaches a day (Mayo Clinic, 2019). They may be associated with lacrimation, conjunctival injection, nasal congestion or runny nose, facial sweating, eyelid swelling, or miosis/ptosis (Bonthius & Hershey, 2021). These types of headaches are rare in children under age 10 and become more frequent between ages 10 and 20 years (Bonthius & Hershey, 2021).

Evidence-based practice! Headaches that begin in childhood may eventually remit or improve with time. In one study, 100 children and adolescents with headache were seen 8 years after the initial visit. Remission occurred in 44% of children with tension headache and in 28% of children with migraine. In another long-term study of 103 children with chronic headaches, frequent headaches persisted in 25% at 2 years and 12% at 8 years. It was also noted that early onset of headaches was associated with a protracted disease course (Bonthius & Hershey, 2021).

Self-Assessment Quiz Question #3

Cluster headaches are:

- Common in children.
- Not common in children.
- Longer in duration and less frequent than migraines.
- Always bilateral.

SECONDARY HEADACHES

Secondary headaches are caused by an underlying condition. The most common cause of secondary headaches in children and adolescents is a respiratory or sinus infection (Bonthius & Hershey, 2021). Other common causes include fever, pharyngitis, temporomandibular joint dysfunction, and dental infections (Saladino, 2019). Some secondary headaches may be caused by life-threatening conditions such as head trauma, intracranial hemorrhage, severe infection such as meningitis or encephalitis, hypertension, or intracranial mass (Saladino, 2019).

Concerning history from the child or family includes the following signs (Bonthius & Hershey, 2021):

- Headaches that awaken the child from sleep.
- Thunderclap headaches.
- Persistent nausea or vomiting.
- Altered mental status.
- Recurrent localized headache.
- Occipital headache.
- Change in headache characteristics (quality, frequency, pattern).
- Headache worsened when lying down or by cough, defecation, or physical activity.

Menstrual migraines

Menstrual migraines and menstrual-related migraines are one of the most common disabilities in reproductive-aged females (Calhoun, 2021). These are a type of secondary headache that do not have an aura and are related to estrogen levels in the body (Calhoun, 2021). Menstrual migraines usually occur 2 days before through 3 days after onset of menses, usually during (or after) the time when estrogen and progesterone drop to their lowest levels (Calhoun, 2021). Menstrual-related migraines have the same onset as related to menses as menstrual migraines, but headaches can also occur at other times in the menstrual

Brain tumors

Brain tumors are the most common tumor in childhood. A brain tumor is a mass (group) of expanding abnormal intracranial cells that may cause headaches because of the traction on blood vessels and dura by the tumor as well as compression on nerve fibers (Lay & Sun-Edelstein, 2020). Headaches occur at presentation in 20% of patients with a brain tumor and will occur during the course of the disease in 48% to 60% of individuals (Lay & Sun-Edelstein, 2020). The most common types of primary tumors in children are gliomas, meningiomas, and pituitary adenomas (Lay & Sun-Edelstein, 2020).

Signs and symptoms

Signs and symptoms of brain tumors in children vary widely and depend on the tumor location, size, and rate of growth (Lay & Sun-Edelstein, 2020). Headaches caused by brain tumors

Critical indicators of possible intracranial cause include the following (Bonthius & Hershey, 2021):

- An abnormal neurologic exam (ataxia, weakness, diplopia, abnormal eye movements or other focal signs).
- Papilledema or retinal hemorrhages.
- Nuchal rigidity.
- Cranial bruits.
- Signs of trauma.
- Skin lesions suggesting neurofibromatosis.

Self-Assessment Quiz Question #4

Which of the following is true about secondary headaches?

- They are headaches that result from another medical condition.
- They are headaches that are not the result of another medical condition.
- Examples of secondary headaches are migraine headaches and tension headaches.
- Cluster headaches are secondary headaches.

cycle (Calhoun, 2021). Menstrual migraines are usually treated with non-steroidal anti-inflammatory drugs (NSAIDs) beginning 2 or 3 days before the menstrual period starts (Calhoun, 2021). If the response is inadequate, they may be prevented with oral contraceptives (Calhoun, 2021). Careful characterization of headaches is important before starting combined hormonal contraceptives because of the increased risk of stroke in females who have migraines with aura. Use of combined hormonal contraceptives to manage menstrual migraine is controversial, and the risks and benefits should be weighed.

typically follow the classic "brain tumor triad," involving a headache that occurs in the early morning or at night, is severe, and is followed by nausea or vomiting (Lay & Sun-Edelstein, 2020). Headaches as the only symptom are present in only 0% to 1% of children with brain tumors (Lay & Sun-Edelstein, 2020). Other symptoms that may accompany headaches are seizures, fatigue, cognitive dysfunction, or focal weakness (Lay & Sun-Edelstein, 2020).

Red flags

Following are possible signs of headaches caused by brain tumor (Lay & Sun-Edelstein, 2020):

- Acute, new, severe headache or headache that has changed patterns.
- Headache on exertion, onset at night or early morning.

- Progressively worsening headache.
- Headache associated with fever or other systemic symptoms.
- Headache with meningeal signs.
- Headache with new neurologic signs.
- Precipitation of headache with Valsalva maneuver.

Hydrocephalus

Hydrocephalus is an accumulation of cerebrospinal fluid (CSF) in the brain leading to increased intracranial pressure (ICP) and ventricular dilation (Haridas & Tomita, 2020c). The prevalence of hydrocephalus in infants is 0.5 to 0.8 per 1,000 births in the US and Europe (Haridas & Tomita, 2020c). Hydrocephalus may be caused by primary cerebral malformation (congenital) or acquired postnatally secondary to a tumor, hemorrhage, or CNS infection such as meningitis (Haridas & Tomita, 2020c).

Signs and symptoms

Infants and children with mild hydrocephalus may not have any symptoms (Haridas & Tomita, 2020a). Signs and symptoms of hydrocephalus are nonspecific and independent of the etiology (Haridas & Tomita, 2020a):

- Headache--caused by a distortion of the meninges and blood vessels. If associated with ICP, headaches occur in the early mornings and may be accompanied by nausea and vomiting.
- Behavioral changes including irritability, aggression, or indifference.
- Developmental delays--in young children, psychomotor delay or gait dysfunction may occur.
- Nausea, vomiting, decreased appetite.
- Lethargy and drowsiness.

Hypertension in children and adolescents

The definition of hypertension for children and adolescents is the average systolic blood pressure (SBP) and/or average diastolic blood pressure (DBP) greater than or equal to the 95th percentile for sex, age, and height or is $\geq 130/80$ mmHg (Mattoo, 2020a).

Etiology and incidence

The prevalence of hypertension in childhood is 4% (Mattoo, 2020b). Primary hypertension is a diagnosis of exclusion and is the most common cause of hypertension in children and adolescents (Mattoo, 2020b). In primary hypertension, no identifiable cause is found (Mattoo, 2019). Risk factors for primary hypertension include male sex, African American ethnicity, hereditary, obesity, stress, low birth weight, and salt intake (Mattoo, 2020b). Secondary hypertension is caused by an underlying disease, the most common being renal, endocrine, and renovascular diseases (Mattoo, 2020b).

Signs and symptoms

- **Primary hypertension:** Primary hypertension usually causes no symptoms in children (Mayo Clinic, 2018).
- **Secondary hypertension:** Symptoms are related to the underlying disease (Mattoo, 2019). In a Polish study, 351 of 636 children (55%) with sustained hypertension had a known secondary cause (Mattoo, 2019). The most common causes were renal disease (68%) and endocrine and renovascular diseases (11% and 10 % respectively; Mattoo, 2019).

Severe Hypertension Signs and Symptoms Suggesting a Hypertensive Emergency (Mattoo, 2019):

- Headaches, especially if severe.
- Seizures.
- Vomiting.
- Dizziness.
- Visual disturbances.
- Symptoms suggestive of heart failure: chest pain, palpitations, cough, shortness of breath.

Management and treatment

The therapy used to treat brain tumors depends on the type and site of the tumor. Treatment may involve surgery, chemotherapy, radiation, or a combination of any of these (Lay & Sun- Edelstein, 2020).

Physical exam findings

Physical findings of hydrocephalus are due mostly to the effects of ICP (Haridas & Tomita, 2020a):

- Vital signs--bradycardia, systemic hypertension, and altered respiratory rate.
- Head--macrocephaly, full or distended anterior fontanelle, abnormal percussion note to head (Macewen sign), frontal bossing, prominent scalp veins.
- Neurologic examination--spasticity of extremities, diplopia, upward gaze ("setting sun" sign).
- Fundus--papilledema.
- Spine--acquired Chiari II malformation.
- Growth and pubertal development may be accelerated.

Management and treatment

Most cases of hydrocephalus in children require surgical drainage using extracranial shunts or third ventriculostomy (Haridas & Tomita, 2020b). In children who already have a shunt, headaches should be evaluated for potential shunt malfunction.

Nursing consideration: For a child with hydrocephalus, a nurse can provide anticipatory guidance for families, including the management of psychomotor challenges, daily head circumference measurements, teaching signs and symptoms of ICP, and the referral to support groups.

- Infants may show irritability, failure to thrive, vomiting, or feeding problems.

Self-Assessment Quiz Question #5

Which of the following is true regarding hypertension in children and adolescents?

- Primary hypertension is related to male sex, obesity, and salt intake.
- The prevalence of hypertension is more than 30% in children.
- Children over the age of 1 year old should have their blood pressure measured routinely.
- Primary hypertension shows multiple signs and symptoms.

Physical exam findings

Physical findings of secondary hypertension in children and adolescents are related to the underlying disease. The diagnosis of hypertension must be made when blood pressure is elevated on three separate occasions (Mattoo, 2020a). Children older than 3 years old should have their blood pressure measured at annual visits (Mattoo, 2020a).

Management and treatment

For primary hypertension, general counseling and nonpharmacologic therapy should be offered. This includes weight reduction; regular exercise; diet modification, including restricting salt; and avoiding smoking, alcohol, caffeine, and energy drinks (Mattoo, 2020c). If there is an insufficient response to lifestyle modifications, then antihypertensive drug therapy is recommended (Mattoo, 2020c).

For secondary hypertension, therapy for the underlying disease is needed (Mattoo, 2020c). Severe symptomatic hypertension should be treated with IV antihypertensive agents in an acute care setting until controlled (Mattoo, 2020c).

HEADACHE CAUSED BY ILLNESS

Headaches can be caused by many illnesses, including influenza, upper respiratory infection, sinusitis, and meningitis.

Influenza (the Flu)

Influenza is an illness caused by a respiratory virus Influenza A, B, or C and can spread rapidly through communities, usually during the winter (Munoz, 2020). Influenza typically is a self-limited and uncomplicated disease but can be associated with significant morbidity and mortality (Munoz, 2020). Influenza can spread through coughing, sneezing, and by touching a contaminated hard surface, such as a door handle, and then touching the nose, mouth, or eyes (Munoz, 2020).

Signs and symptoms

All influenza viruses cause a respiratory illness that can last 1 week or longer. Children usually feel much sicker and more miserable than when they have a common cold (Munoz, 2020).

The following are classic symptoms of influenza in children (Munoz, 2020):

- A sudden fever, usually above 100.4° F (38° C).
- Headache.
- Chills.
- Body aches.
- Fatigue.
- Sore throat.
- Dry, hacking cough.
- Nasal congestion, rhinorrhea.
- Vomiting or diarrhea.

Treatment

Treatment of influenza for children and adolescents includes the following (Munoz, 2021):

- Bed rest.
- Extra fluids.
- Acetaminophen in age-appropriate and weight-appropriate doses if the child is uncomfortable because of a fever.
- Ibuprofen is approved for use in children 6 months of age and older. Ibuprofen should not be given to children who are dehydrated or who are vomiting continuously.

Upper respiratory infection (common cold)

An upper respiratory infection (URI), or common cold, is an acute, self-limiting illness of the upper respiratory tract (Pappas, 2020a).

Etiology and incidence

Children under age 6 develop an average of 6 to 8 URIs per year, compared to adults who average 2 to 4 URIs per year (Pappas, 2020a). Children suffer more from URIs than adults do because of their immature immune systems and close physical contact with other children at school or at daycare (Pappas, 2020a). URIs can be spread through direct contact as well as through droplets from sneezing or coughing (Pappas, 2020a).

Children can get URIs at any time of year but are more likely to get them during fall and winter (Pappas, 2020a). More than 100 different viruses can cause URIs, but rhinoviruses are responsible for 50% of cases in children and adults (Pappas, 2020a). Other types of viruses that cause common colds are the respiratory syncytial virus, enterovirus, adenovirus, parainfluenza, and coronavirus (Pappas, 2020a). These viruses can survive on human skin for 2 hours and on surfaces for 1 day (Pappas, 2020a).

Nursing consideration: Nurses should educate parents that viruses can spread through close contact. Handwashing with soap and water for 20 seconds can greatly reduce risk. People should avoid touching eyes, nose, and mouth with unwashed hands. Objects such as toys that have been previously touched by someone with a cold also spread viruses and should be cleaned appropriately.

Signs and symptoms

Symptoms of a URI start 1 to 2 days after the child has been in contact with the virus. Approximately ¾ of children remain

- Never give aspirin to a child who has influenza because of the increased risk of developing Reye's syndrome.

Antiviral medications can be important for children and adolescents who develop influenza despite being immunized and for those who are not immunized (Munoz, 2021). The most common medication is oseltamivir (Tamiflu), which is approved for any individual above 2 weeks of age (Munoz, 2021). It is important to note the medications are more effective if given within 2 days of onset of illness and result in a shorter duration of symptoms by only 1 day (Munoz, 2021).

The Centers for Disease Control (CDC; 2020) advises the following indications for antiviral treatment:

- Any child hospitalized for influenza.
- Children with confirmed or suspected influenza who have severe or complicated illness.
- For any child at high risk for complications regardless of immunization status: This category includes children under age 5 (especially under age 2); Native Americans and Alaska Natives; those with asthma, neurologic conditions, heart disease, and blood, endocrine, kidney, liver, and metabolic disorders; those with extreme obesity; and any immunocompromised individual.
- Any healthy child for whom a decrease in duration of symptoms is warranted.

Self-Assessment Quiz Question #6

Which of the following is NOT true about influenza in children?

- Headaches are common in children with the flu.
- All flu viruses cause a respiratory illness that can last 1 week or more.
- The flu can be spread by touching a contaminated hard surface like a door handle.
- The flu is harmless and will pass on its own.

symptomatic on day 10 of illness (Pappas, 2020a). The following are common signs and symptoms (Pappas, 2020a):

- **Infants:** fever, fussiness, nasal discharge, difficult feeding, difficult sleeping, sometimes vomiting and diarrhea.
- **Older children:** headaches (sometimes), nasal congestion and discharge, rhinorrhea, scratchy and tickly throat, watery eyes or redness, sneezing, mild hacking cough, sore throat, muscle aches, low-grade fever, chills.

These signs and symptoms require further follow-up (Pappas, 2020a):

- A fever higher than 100.4° F (38° C).
- Symptoms that are not relieved by over-the-counter medication.
- Symptoms lasting more than 10 days without improvement.
- Presence of earache (indicating a possible ear infection), wheezing (asthma), a worsening or persistent cough (pneumonia, pertussis).

Treatment

There is no role for antibiotics because URIs are caused by viruses (Pappas, 2020b). Treatment emphasizes supportive care, including increased fluid intake, avoidance of secondhand smoke, using saline nose drops, a bulb syringe to remove mucus, a cool mist humidifier, and analgesics such as acetaminophen or ibuprofen (Pappas, 2020b). Over-the-counter (OTC) cold medications should be avoided in children under age 6 and are not advised in ages 6 to 12 years (Pappas, 2020b). Codeine, dextromethorphan, guaifenesin, or other mucolytics (found in OTC cold medications) have not been found to be efficacious and have potential for toxicity (Pappas, 2020b).

Nursing consideration: Nurses should not give OTC cold medication to children under age 6 (Pappas, 2020b).

Sinusitis

Sinusitis is an inflammation of the mucosal lining of one or more of the paranasal sinuses and is a common infection in children (Wald, 2021a). Sinusitis can be caused by a virus or a bacterium (Wald, 2021a). Bacterial sinusitis is a secondary infection caused by the trapping of bacteria in the sinuses during the course of a cold or allergy (Wald, 2021a). Viral sinusitis usually accompanies a URI and is self-limited (Wald, 2021a).

Signs and symptoms

Signs and symptoms in children and adolescents may include the following (Wald, 2021a):

- A severe headache or facial pain behind or around the eyes that gets worse when bending over (these symptoms are rare in young children).
- Cold symptoms (cough, nasal discharge, or both).
- Nasal discharge (watery or yellow).
- Fever.
- Bad breath.

Compared to viral sinusitis, acute bacterial sinusitis typically causes fever for 3 or more days and is associated with symptoms that last more than 10 days without improving (Wald, 2021a). Bacterial sinusitis can also present with “double sickening,” in

Meningitis

Meningitis is an inflammation of the meninges (the membranes that line the skull and enclose the brain and spinal cord) caused by viruses or bacteria (Pentima, 2021). The mortality rate of untreated bacterial meningitis is 100% and survivors are at high risk for neurological impairment (Kaplan, 2020b).

Etiology and incidence

Infants younger than 2 months are at the highest risk for bacterial meningitis from group B *Streptococcus* (GBS), *Escherichia coli*, and other gram-negative bacilli (Edwards & Baker, 2020).

Signs and symptoms

Viral meningitis symptoms are similar to those of bacterial meningitis but less severe (Pentima, 2021).

Signs and Symptoms in Infants Younger than 1 Year (Edwards & Baker, 2020; Kaplan, 2020a):

- Abrupt onset fever with nonspecific symptoms: poor feeding, vomiting, diarrhea, rash, respiratory symptoms.
- Neurological signs can be absent or can present as irritability, lethargy, nuchal rigidity, bulging fontanelle, seizures.

Signs and symptoms in older infants and children

- Headache.
 - Fever.
 - Neck stiffness.
 - Nausea and vomiting.
 - Irritability, confusion.
 - Photophobia.
- (Kaplan, 2020a)

Prognosis

Both influenza and URIs can be relatively harmless, but influenza has the potential to develop into pneumonia and even death in children. A URI can lead to otitis, sinusitis, throat infections, and pneumonia (Pappas, 2020a).

which the individual seems to be recovering but becomes worse on the 6th or 7th day (Wald, 2021a).

In an estimated 5% of cases, a bacterial sinus infection may spread to the eye or the central nervous system (Wald, 2021a). A child will require immediate urgent care if they present with the following (Wald, 2021a):

- Swelling or redness around the eyes.
- Severe headache.
- Severe pain in the back of the neck.
- Persistent vomiting.
- Sensitivity to light.
- Focal neurological deficits.
- Increasing irritability.
- Altered level of consciousness.

Treatment

For children with 10 days of persistent symptoms that are not severe or worsening, an antibiotic may be given or they may be observed for 3 days (Wald, 2021b). For children with worsening or severe symptoms, an antibiotic is prescribed (Wald, 2021b). Once the child starts on medication, symptoms should resolve over the next 2 to 3 days (Wald, 2021b).

Physical exam findings

Physical exam findings for meningitis vary depending on the age of the child (Edwards & Baker, 2020; Kaplan, 2020a):

- **Newborn:** bulging fontanel, temperature instability, poor tone, tremors or twitches, seizures, respiratory distress.
- **Older infants and children:**
 - Kernig's sign: Flexion of the leg 90 degrees at the hip causes pain on extension of the leg.
 - Brudzinski sign: Involuntary flexion of legs occurs when neck is flexed.
 - Headache is a frequent sign of increased intracranial pressure.

Diagnostic tests and findings

Diagnosis of meningitis is based on the examination and culture of cerebrospinal fluid (CSF) and blood (Kaplan, 2020a). Lumbar puncture is performed for CSF analysis which may reveal increased white blood cell count (predominantly neutrophils), increased protein, or decreased glucose (Kaplan, 2020a).

Management and treatment

Hospitalization is required for bacterial meningitis, with the first 3 to 4 days critical (Kaplan, 2020b). Antibiotic therapy should be initiated once diagnosis is confirmed by clinical findings or while awaiting specific CSF and blood culture results (Kaplan, 2020b). The prognosis depends on level of consciousness at the time of admission, causative agent, prolonged or complicated seizures, low CSF, glucose concentration, delayed sterilization of the CSF, and nutritional status (Kaplan, 2020b). Immunizations given for the prevention of meningitis are the Hib, PCV13, MenB, and MCV4 vaccines (Kaplan, 2020b).

HEADACHE CAUSED BY ACUTE BRAIN INJURIES OR HEAD TRAUMA

Head trauma is any injury to the skull, scalp, meninges, or any part of the brain. Most head trauma in children is minor and not associated with any long-term consequences (Schutzman, 2021). Head trauma can be subdivided into skull fractures, focal brain injuries, and diffuse brain injuries.

Etiology and incidence

Head injuries are common in pediatrics, and headaches are the most common complaint following mild head trauma (Schutzman, 2021). Falls are the most common cause of head injury, followed by car accidents, pedestrian and bicycle

accidents, projectiles, assaults, sport-related trauma, and abuse (Schutzman, 2021).

In US children younger than age 14, traumatic brain injuries (TBI) cause 500,000 emergency room visits, 37,000 hospitalizations, and 2,000 deaths annually (Schutzman, 2021). TBIs are the most common cause of death and disability in children and adolescents (Schutzman, 2018). Head trauma is more common in younger male children, especially in those younger than age 5 (Schutzman, 2018).

Physical exam findings

Physical exam findings of severe head injury include the following (Schutzman, 2021):

- Scalp hematoma, tenderness, or depression.
- Bulging anterior fontanelle in infants.
- Altered mental status with Glasgow score below 14.
- Focal neurological abnormality
- Signs of basilar skull fracture:
 - Periorbital ecchymosis.
 - Battle's sign (bruising over mastoid process).
 - Hemotympanum (blood in tympanic cavity.)
 - CSF leaking from ears or nose.

Diagnostic tests and findings

The PECARN Pediatric Head Injury Trauma Algorithm rule can help determine if a child is at low risk of significant traumatic brain injury (Schutzman, 2021). Children and adolescents at low risk for a TBI do not need neuroimaging (Schutzman, 2018).

According to the PECARN rule, below are findings associated with very low risk of significant head injury in children 0-2 years and 2-18 years (Schutzman, 2021):

Ages 0 to 2

- Normal mental status.
- Normal behavior per caregiver.
- No loss of consciousness.
- No severe mechanism of injury.
- No nonfrontal scalp hematoma.
- No evidence of skull fracture.

Ages 2 to 18

- Normal mental status.
- No loss of consciousness.
- No severe mechanism of injury.
- No vomiting.
- No severe headache.
- No signs of basilar skull fracture.

Children under the age of 2 years require imaging in the following circumstances (Schutzman, 2021):

Skull fractures

The type, severity, and symptomatology of a skull fracture depend on the area involved in the skull fracture, the age of the child, and the force of impact (Atabaki, 2019). Skull fractures are seen in 2% to 20% of children presenting to outpatient visits for head trauma (Atabaki, 2019).

Nursing consideration: Nurses should educate parents about preventing falls to protect their children from head injuries. Parents should use child safety equipment for recreation and sports (helmets), use a seat belt or car seat, and evaluate play areas for risk of falls and injury.

Types of skull fractures:

- Linear skull fractures involve the thickness of the skull, sometimes disrupt the underlying vascular structure, and occur in 75% of all skull fractures in children.

Focal brain injuries

A headache in a child may indicate a possible focal brain injury. Focal brain injuries occur in a specific location of the brain. Types of focal brain injuries are brain contusion, brain hemorrhage, subarachnoid hemorrhage, epidural hematoma, and subdural hematoma (Vavilala & Tasker, 2019).

Brain contusions are typically caused by blunt trauma when the skull accelerates and then decelerates (Vavilala & Tasker, 2019). Subarachnoid hemorrhage is a type of hemorrhage caused by a tearing of small vessels in the brain (Vavilala & Tasker, 2019).

Subdural hematoma

A subdural hematoma (SDH) is a blood clot formation on the brain surface beneath the dura mater (Vavilala & Tasker, 2019). SDH is often seen in child abuse and shaken baby syndrome (Vavilala & Tasker). Signs of intracranial hypertension include irritability, lethargy, vomiting, seizure, loss of consciousness, and

- Suspicion of child abuse.
- Focal neurological signs or symptoms.
- Skull fracture.
- Altered mental status.
- Bulging fontanelle.
- Persistent vomiting.
- Seizures.
- Loss of consciousness.

Children 2 years and older require neuroimaging in the following situations (Schutzman, 2021):

- Focal neurologic findings.
- Skull fracture.
- Seizures.
- Persistent altered mental status.
- Prolonged loss of consciousness.

Neuroimaging

Magnetic resonance imaging (MRI) is most useful in the evaluation of subacute or chronic rather than acute injuries. A computed tomography (CT) scan is useful in detection of all clinically important TBIs. CT scans must be used carefully in children with minor head trauma because of a risk of radiation-induced malignancy. Skull radiography is rarely performed because it does not give direct information about intracranial injury. It may be used in suspected child abuse or concern for a foreign body (Schutzman, 2021).

General management and treatment

A child who is at intermediate risk for a clinically important TBI based on physical exam findings or the PECARN rule, and does not need neuroimaging, may safely be discharged home if they show improvement in initial symptoms in the 4 to 6 hours post-injury (Schutzman, 2021). Those who meet the PECARN rule, have normal neuroimaging, and normal level of consciousness (LOC) may be discharged safely home (Schutzman, 2021). Children not meeting criteria for discharge should be admitted to hospital for further observation or consultation with a specialist.

- Depressed skull fractures are caused by blows over small areas and may cause cerebral injury.
 - Basilar skull fractures occur at the base of the skull and can cause bruising over the mastoid bone (Battle's sign) or around the eyes (raccoon eye sign), as well as CSF leaking from the ear or nose.
 - Open fractures increase risk of central nervous system infection as there is an opening of the skull to the outside environment.
- (Atabaki, 2019)

Nursing consideration: It is important for the nurse to understand that brain damage may not be present in a child when there is a skull fracture, and a child's brain can be injured without a skull fracture.

headache. Outcomes after SDH are predicted by the neurologic status of the child on presentation. Those presenting with severe altered level of consciousness and neurological symptoms will lead to poorer outcomes than those who present neurologically intact (Vavilala & Tasker, 2019).

Epidural hematoma

An epidural hematoma (EDH) is a hemorrhage between the skull and dura of the brain (Vavilala & Tasker, 2019). As the hematoma expands in the skull, it separates the dura from the skull (Ahn & Proctor, 2018). EDHs can be caused by a fall from a height higher than 10 feet or two times a child's height, a motor vehicle accident, or a direct blow to the skull (Ahn & Proctor, 2018).

Signs and symptoms

The classic clinical sign of an epidural hematoma is a delayed onset of symptoms. The individual suffers a direct blow to the skull, has decreased level of consciousness, and then returns to a normal level for several hours (Ahn & Proctor, 2018). Once the blood accumulates in the brain, the child rapidly deteriorates (Ahn & Proctor, 2018).

Physical exam findings

EDH should be suspected in an infant with a scalp hematoma in the temporal or occipital regions, as well as an infant who presents with seizures and loss of tone (Ahn & Proctor, 2018). As the hematoma enlarges and increases the ICP in the brain, children and adolescents may experience the following (Ahn & Proctor, 2018):

- Headache.

Diffuse brain injuries

Diffuse brain injuries occur over a widespread area of the brain, not just in one specific location as in focal brain injuries. These are the most common type of TBI resulting in death and are usually caused by impaction, acceleration, and deceleration forces (Vavilala & Tasker, 2019). A child who presents with a headache may have a diffuse brain injury, under which concussion falls.

Concussion

A concussion, or mild traumatic brain injury (mTBI), is a head injury that causes a pathophysiological state that results in characteristic signs and symptoms after experiencing a head injury (Meehan & O'Brien, 2020a). The American Academy of Neurology defines mTBI as loss of consciousness (LOC) lasting less than 30 minutes, post-traumatic amnesia lasting less than 24 hours, and an initial Glasgow Coma Scale (GCS) of 13 to 15 (Evans & Whitlow, 2021). Concussion can be caused by a direct blow to the head, face, neck, or elsewhere on the body, with an impulsive force that is transmitted to the head (Meehan & O'Brien, 2020a). Acute clinical symptoms reflect a functional disturbance rather than a structural injury (Meehan & O'Brien, 2020a).

Etiology and incidence

Concussion and mTBI are common pediatric injuries. The CDC estimates that 3.8 million sport-related brain injuries occur every year (Meehan & O'Brien, 2020a). The incidence of concussions is highest in boys playing rugby, football, hockey, and lacrosse (Meehan & O'Brien, 2020a). In girls, soccer, lacrosse, and field hockey have the highest incidences (Meehan & O'Brien, 2020a). Sports represent 25% to 50% of concussions in the emergency department (Meehan & O'Brien, 2020a).

History-taking for children and adolescents

It is important to obtain a thorough history of the trauma and detailed description of the headache in a child with a suspected concussion. It is also crucial to establish a mechanism of injury, whether there was any loss of consciousness or seizures, whether there are neurological symptoms, the time of onset of symptoms in relation to the injury, and any prior history of head injury or concussions (Meehan & O'Brien, 2020a).

Signs and symptoms

The following are concussion signs and symptoms for children and adolescents (Meehan & O'Brien, 2020a):

- Somatic symptoms: headache, fatigue, dizziness, nausea, self-limited vomiting, unsteadiness with gait, vision changes, sensitivity to noise, tinnitus.
- Emotional symptoms: lability (rapid, often exaggerated changes in mood), irritability. Cognitive symptoms: "feeling like in a fog," difficulty remembering, trouble concentrating.
- Sleep disturbances: insomnia, sleeping more than usual.
- Change in LOC. (However, it is important to note that not all concussions result in LOC)

- Confusion.
- Vomiting.
- Lethargy.
- Loss of consciousness.

EDH may progress to lethargy, coma, and even death if left untreated (Ahn & Proctor, 2018). Emergency consultation with a pediatric neurosurgeon is required (Ahn & Proctor, 2018).

Nursing consideration: In epidural hematoma, there is a delayed onset of symptoms, and it may progress to coma and even death in children left untreated (Ahn & Proctor, 2018). Therefore, it is especially important that nurses consider this in the differentials when caring for a child who complains of a headache and promptly refer the child for further medical care if other symptoms develop.

Nursing consideration: It is important to remember that a concussion may or may not involve a loss of consciousness in the child (Meehan & O'Brien, 2020a). It should not be assumed that the child has not had a concussion if they did not lose consciousness.

Physical exam findings

Following a head injury or suspected concussion, a child should have a complete neurological examination and an examination of the cervical spine and skull (Meehan & O'Brien, 2020a). Because concussions usually cause a functional disturbance of the brain and not a structural injury, children and adolescents with concussion typically have a normal physical exam (Meehan & O'Brien, 2020a).

Red flags

Rarely, a concussion may cause a hematoma in the brain that can squeeze the brain against the skull (CDC, 2019a). If the child shows any of the red flag symptoms described below, they may need to be taken to the emergency department for immediate care and further imaging (CDC, 2019a).

It is important to note that because concussion is a disturbance of brain function, structural neuroimaging (CT, MRI) does not reveal concussive brain injury and should not be routinely performed unless a structural intracranial injury is suspected (Meehan & O'Brien, 2020a). The presence of any of the following red flags should prompt neuroimaging (CDC, 2019a; Meehan & O'Brien, 2020a):

- Loss of consciousness longer than 1 minute.
- Lethargic, somnolent.
- Headache induced by positional change or Valsalva.
- Thunderclap headache: a headache that strikes severely and suddenly and is sometimes described as "the worst headache ever experienced," peaks within 60 seconds, lasts between an hour and 10 days, and can be accompanied by nausea, vomiting, or loss of consciousness.
- Progressively worsening headaches despite rest.
- Seizure.
- Signs of basal or depressed skull fracture.
- Focal neurological symptoms or deficits.
- Confused, agitated, or irritable.
- One pupil larger than the other.
- Drowsiness or inability to wake up.
- Slurred speech, weakness, numbness, decreased coordination.
- Repeated vomiting or nausea.
- Unusual behavior.
- Restlessness.
- Any concussions symptoms lasting longer than 3 to 4 weeks.
- Will not stop crying (Infants and toddlers).
- Cannot be consoled (Infants and toddlers).
- Will not nurse or eat (infants and toddlers).

Self-Assessment Quiz Question #7

A 10-year-old boy comes to a pediatric primary care clinic with his mother. The child hit his head during gym class and says that his headache is the “worst headache of my life,” the headache has become “worse and worse,” and more frequent. What should be done to care for this child?

- a. Send the child back to school because he is probably complaining to get attention.
- b. The headache may sound serious, but the child can go to school and come back to the office if he feels any worse in the next few days.
- c. The child is too young to understand his own pain and headache history. He is only 10 years old.
- d. These are red flags and the child should be immediately referred to a hospital for emergency care.

Diagnostics, forms, and tools for concussions

Acute concussion evaluation (ACE) forms are used by healthcare providers and by patients and families to document symptoms and to be aware of red flags (CDC, 2019b). Other diagnostic tools include the Sport Concussion Assessment Tool (SCAT), which is available for both children ages 5–12 years and adolescent and/or adults 13 years and older (Halstead, Walter & Moffatt, 2018).

Management of concussions

The initial management of concussion focuses on cognitive and physical rest, symptom management, and removal from sports to avoid additional head injuries. Cognitive rest means avoiding tasks (reading, schoolwork) that worsen symptoms (Meehan & O'Brien, 2020b). There is no conclusive research showing that use of electronics such as computers, television, or phones is harmful after a concussion and may instead contribute to a child or adolescent's isolation, anxiety, or depression (Halstead, Walter & Moffatt, 2018). However, activities that worsen symptoms, including headache, should continue to be avoided, and that may or may not include screens.

For headaches, a child may take acetaminophen or NSAIDs for a few days (Meehan & O'Brien, 2020b). However, their prolonged use should be avoided because of the risk of rebound headaches (Meehan & O'Brien, 2020b). Antinausea medication such as Ondansetron (Zofran) can be helpful for the first few days after injury if nausea interferes with eating and drinking (Meehan & O'Brien, 2020b). Sleep disturbances are common after concussion and will typically improve with sleep hygiene (Meehan & O'Brien, 2020b). Children and adolescents also may try melatonin if they are having difficulty falling asleep (Meehan & O'Brien, 2020b). Dizziness tends to resolve with rest; however, if prolonged, the clinician may consider vestibular rehabilitation by a physical therapist (Meehan & O'Brien, 2020b).

Nursing consideration: One of the few interventions that has been shown to improve outcome following a mild traumatic brain injury is education about the expected clinical course following the head injury and education about the injury. Often, this education is not provided to the families of injured children and adolescents. Nurses should educate children and their families about what to expect following a mild traumatic brain injury.

Returning to sports and school

A concussion will usually cause a disruption of the child's ability to learn, concentrate, remember, and process new school material (Meehan & O'Brien, 2020b). Healthcare providers should work with the family and the child's school to help set up support services such as response to intervention protocol (RTI), 504 Plan, or an Individualized Education Plan (IEP; CDC, 2019c).

Individuals should adhere to physical rest for 24 to 48 hours followed by a gradual and progressive return to noncontact, aerobic activity (Meehan & O'Brien, 2020b). Return-to-play

guidelines assist athletes to return safely to sports through a protocol of increasing levels of physical exertion (Meehan & O'Brien, 2020b). The steps for returning to sports for children and adolescents are completed over the course of days, weeks, or months, depending on the condition of the child (CDC, 2019c). Athletes should progress to the next step only if they are not having any symptoms (CDC, 2019c). If symptoms return at any level, they should stop the activity, and once the symptoms have resolved for at least 24 hours, the athlete may start again at the previous step (CDC, 2019c).

Return to play involves the following 5 steps (CDC, 2019c):

- **Baseline:** Back to school first.
- **Step 1:** Light aerobic activity (5 to 10 minutes walking, light jogging, or on an exercise bike).
- **Step 2:** Moderate activity (moderate jogging, brief running, moderate biking, or weightlifting).
- **Step 3:** Heavy, noncontact activity (sprinting or running, high-intensity biking, regular weightlifting routine).
- **Step 4:** Return to full contact in controlled practice. Step 5: Return to competition.

Evidence-based practice! A study of more than 100 adolescents with sports-related concussion found that those who initiated aerobic exercise within 10 days of injury significantly decreased the time to recovery compared to those who performed gentle stretching. There also was a lower incidence of persistent concussion symptoms in the aerobic exercise group, but this finding was not statistically significant (Meehan & O'Brien, 2020b).

Prognosis

Most children and adolescents who suffer from concussion are symptom-free within 1 month (Meehan & O'Brien, 2020b). Some may take a few months to fully recover from a concussion (Meehan & O'Brien, 2020b). Factors leading to prolonged recovery include a history of prior concussions, female sex, history of migraines, history of learning disabilities, recurrent concussion soon after recovery, and degree of symptoms after a concussion (Meehan & O'Brien, 2020b).

Postconcussion syndrome

Postconcussion syndrome (PCS) is sequela resulting from a TBI, including concussion (Evans, 2021). It is estimated that 30% to 80% of individuals with mild to moderate brain injury will have PCS symptoms (Evans, 2021). PCS symptoms may be vague and subjective, but are generally characterized by headache, dizziness, neuropsychiatric symptoms, and cognitive impairment leading to confusion or irritability (Evans, 2021). The most common symptoms are headache, dizziness, fatigue, irritability, anxiety, insomnia, loss of concentration and memory, and noise sensitivity (Evans, 2021). Post-traumatic headaches occur in 25% to 78% of individuals following a mild TBI (Evans, 2021). Post-traumatic headaches are predominantly migraines and tension type (Schytz, 2021).

Self-Assessment Quiz Question #8

A 15-year-old male football player was diagnosed with a mild concussion. When he is able to return to play?

- a. The patient should rest for at least 24-48 hours followed by gradual and progressive return to non-contact, aerobic activity if tolerated.
- b. The patient can return to sports whenever he feels he is ready.
- c. The patient can immediately begin sports the day after the concussion, including full-contact sports.
- d. The patient should not participate in any physical activity for a length of time and then resume competition on a day that he chooses.

CHRONIC HEADACHES: CHRONIC DAILY HEADACHE

Chronic daily headache (CDH) encompasses several diagnoses characterized by frequent primary or secondary headaches (Garza & Schwedt, 2020b). The term “chronic” refers either to the frequency or the duration of the headache.

Following are the types of chronic headaches that last 4 hours or longer (Garza & Schwedt, 2020b):

- Chronic migraines.
- Chronic tension-type headaches.
- Medication overuse headaches.
- New daily persistent headaches: New, abrupt, daily, unremitting headache in individuals typically without prior headache history.
- Hemicrania continua: Unilateral, continuous headache with autonomic and migrainous features.

Chronic progressive headaches

Chronic progressive headaches are headaches that get worse and happen more often over time (Cleveland Clinic, 2017a). Some may be caused by head trauma or, rarely, they are the sign of a more serious medical condition (Cleveland Clinic, 2017a).

When chronic progressive headaches worsen over time and occur along with other neurological symptoms, they can be the sign of a certain disease process in the brain (Cleveland Clinic, 2017a):

- Abscess of the brain.
- Head trauma.
- Blood clots.
- Tumor.
- Intracranial hemorrhage: Bleeding within the brain.

Medication overuse headache

When analgesic medications are used too often on a regular basis, the child may develop medication overuse headaches (MOH), also known as rebound headaches. The criteria for MOH are the presence of headache on 15 or more days per month and regular use of a medication for headache relief for more than 3 months (Garza & Schwedt, 2020a). The risk of developing MOH is highest with opioids, butalbital-containing medications, and acetaminophen-aspirin-caffeine combinations (Garza & Schwedt, 2020a). The risk for NSAIDs is conflicting and has shown to be low in most studies and high in some (Garza & Schwedt, 2020a). The risk of MOH for triptans is also varied amongst studies, ranging from intermediate to low (Garza & Schwedt, 2020a). The approach for discontinuing overused

The term CDH is applied when the patient experiences more than 15 headaches a month for longer than 3 months in the absence of organic pathology (Garza & Schwedt, 2020b).

The physical exam is generally normal in children with chronic migraines or tension headaches (Bonthius & Hershey, 2021).

The treatment of chronic daily headaches depends on the etiology. For chronic migraines or tension-type headaches, prophylactic interventions are needed, and for medication overuse headaches, the offending agent must be discontinued (Garza & Schwedt, 2020b). Hemicrania continua is responsive to indomethacin (Garza & Schwedt, 2020b). New persistent daily headaches are difficult to treat. The current approach is to try to classify the headache as migrainous or tension-type and treat accordingly (Garza & Schwedt, 2020b).

- Encephalitis: Inflammation of the brain.
- Meningitis: An infection or inflammation of the membrane that covers the brain and spinal cord.
- Hydrocephalus: Abnormal build-up of fluid in the brain.

Nursing consideration: If a child's chronic headaches have lasted for more than 6 months and the child has frequent attacks (more than 3 attacks per week) with significant interference with school or any activity, the child may benefit from further assessment. Careful history taking and recording symptoms of a child with chronic headaches will allow the nurse to recognize the child's need for treatment.

medications other than opioids or barbiturates is to discontinue the offending agent, use medication from another class two or three times a week for abortive therapy, and start preventive therapy (Garza & Schwedt, 2020a).

Nursing consideration: Nurses should always acknowledge the child's pain as real. Children and adolescents may have been told by their teachers, parents, or friends that they do not really have headache pain and it is not that bad, so there should be an acknowledgment of the pain by the nurse to form a therapeutic triad between the child, family, and the nurse.

MANAGEMENT OF HEADACHES

The treatment of headaches in children and adolescents is determined by the etiology of the headache. If there is a suspected intracranial etiology, the child or adolescent will need

evaluation by a physician or neurologist. The child will need to be referred to specialists for further evaluation if headaches are recurrent and unresponsive to treatment.

Medications used in the treatment of headaches

Symptomatic relief medications are used to relieve symptoms associated with headaches. These medications include simple analgesics (ibuprofen or acetaminophen; O'Brien, 2021). Dosing should be appropriate for the age and weight of the child. Acetaminophen (Tylenol) pediatric dosing is 10 to 15 mg per kg every 4 to 6 hours (Medscape, n.d.a). Ibuprofen pediatric dosing is 10 mg per kg every 6 to 8 hours (Medscape, n.d.b). Ibuprofen should not be given to children who are dehydrated or who are vomiting continuously. Given the increased bleeding risk with NSAIDs, these should be avoided in the first 24 hours after a head injury or if there is a possibility of neurosurgical intervention (Mao, 2021). Aspirin should be avoided in children under age 15 because of the risk of Reye's syndrome (O'Brien, 2021). Combination medications with ergotamine, caffeine, butalbital, and codeine should also be avoided because of the potential for drug dependency and rebound headaches (O'Brien, 2021).

Abortive therapy medications are most effective when used at the first sign of a migraine. For mild to moderate attacks, abortive therapy includes ibuprofen, acetaminophen, or naproxen, as well as an antiemetic if nausea and vomiting are prominent (Mack, 2020). For moderate to severe migraines, a triptan such as sumatriptan may be used in children ages 5 years and older (Mack, 2020). For children and adolescents with headaches that are refractory to monotherapy, a combination of a triptan with an analgesic is recommended (Mack, 2020).

Medication is most effective when used in combination with relaxation therapy, exercise, and dietary or lifestyle changes (Cleveland Clinic, 2017a).

Nursing consideration: Nurses must consider the side effects of the prophylactic medications used and be knowledgeable about the dosing for the child's weight and age.

Self-Assessment Quiz Question #9

Which is true regarding using aspirin as a treatment for pediatric headaches?

- a. Aspirin is safe for use in the pediatric population for all ages.
- b. Aspirin should never be given to infants or children because of the risk of Reye's syndrome.
- c. Aspirin can be given at most once or twice per week
- d. Aspirin can be given to children over the age of 2 years old.

Prophylactic treatment of headaches

Prophylactic treatment of headaches is indicated if they occur more than once per week, interfere with routine activities such as school attendance, or if the child is unresponsive to symptomatic treatment (O'Brien, 2021).

For frequent or chronic headaches, preventive therapy is aimed at reducing both the severity and frequency of the headaches. Tricyclic antidepressants, particularly amitriptyline, can result in a significant reduction in headaches, analgesic medication use, and headache-related disability (O'Brien, 2021). Other

commonly used drugs include gabapentin and topiramate (O'Brien, 2021).

Nursing consideration: When treating adolescents, nurses should remember to consider the child's cognitive developmental stage. The adolescent may not understand the instructions of how to take their medication. An early adolescent may need concrete examples and may not understand abstract instructions. An older adolescent may be able to take more control of their own health management.

Psychiatric and behavioral interventions

To treat headaches, it is important to identify what causes or triggers the headaches. A headache diary can help keep headaches under control and can be used to record characteristics of headaches and triggers of headaches and can reveal how well the treatment program is working (O'Brien, 2021). The child and parents can learn ways to remove or cope with the stressful activities or events causing headaches (O'Brien, 2021).

Early identification of anxiety, depression, and other psychiatric disorders may be helpful in the evaluation of frequent headaches in children and adolescents (O'Brien, 2021). The evaluation should assess the child's personality, depression, anxiety, parental anxiety, family history of pain, global family functioning, and relevant social factors (O'Brien, 2021).

Behavioral treatment strategies for pain management are mostly derived from cognitive behavioral therapy (CBT) and relaxation techniques. Evidence for these is limited and conflicting in children; however, some reports indicate they can be effective

in reducing headache severity and frequency (O'Brien, 2021). While CBT and biofeedback relaxation therapy (guided imagery, muscle relaxation, deep breathing) may help with headaches, physical therapy, acupuncture, hypnosis, meditation, and massage have been unproven to help (Bonthius & Hershey, 2021). Unfortunately, few children and adolescents receive CBT because of a lack of awareness that this type of treatment exists, misconceptions about having to see a therapist, and a shortage of skilled therapists using these techniques (O'Brien, 2021).

Evidence-based practice! A meta-analysis conducted in 2017 reviewed studies evaluating the effectiveness of CBT for treating pediatric headaches and migraines. The review defined significant improvement in headaches if they were reduced in frequency by at least 50%. Results found not only support for CBT as an effective form of treatment compared to placebo, waitlist, or medication, but also that the headache frequency reductions were maintained long term (Kroon Van Diest & Powers, 2018).

Lifestyle changes and prevention of recurrent headaches

Children and adolescents who suffer from recurrent headaches may be able to prevent their headaches or reduce their frequency by making lifestyle modifications. Regular exercise for 20 to 30 minutes a day and regular healthy meals (without skipping meals) can be helpful (Bonthius & Hershey, 2021). Other lifestyle modifications include adequate hydration, weight management, limiting caffeine intake, and consistent sleep schedules (O'Brien, 2021).

The existence of a close relationship between sleep, mood, and headache has been recognized. Sleep, headache, and mood are all located in the same brain region and involve the same chemical messengers (American Migraine Foundation, 2019). With irregular or inadequate sleep, increased risks of headache and mood changes may occur (American Migraine Foundation, 2019). Keeping a consistent bedtime and waking time and ensuring that sleep is continuous without frequent awakening is also helpful (American Migraine Foundation, 2019).

Rest and sleep in a quiet, dark room is often helpful for those experiencing a migraine (American Migraine Foundation, 2019). Children and adolescents should avoid the overuse of analgesic medications and limit the use of these medications to fewer than 15 days per month (Bonthius & Hershey, 2021).

Nursing consideration: Nurses should help educate children, adolescents, and their parents about their headaches. Headache education includes recording and identifying what triggers the child's headache. Triggers can include stress, caffeine, eating certain foods or additives, not eating at regular times, or lack of sleep. Nurses can suggest that the child keep a headache diary to help record information about possible triggers. Encouraging older children and adolescents to manage their headaches with simple analgesia and trigger avoidance has benefits in the long term.

Case study

A 17-year-old female presents with her mother to a pediatric primary care clinic with a complaint of a throbbing headache on the right side of her head 2 to 4 times per month for the past 4 months. Each headache lasts about 24 hours. Approximately 30 minutes before each headache, she has blurred vision and sees flashing lights. She also complains of abdominal pain, nausea, and sensitivity to bright lights and loud noises. Exercise makes her headaches worse but sleeping and Tylenol help improve her

level of pain slightly. Her headaches cause her to miss school, and she worries that missing too much school will make her fall behind. She denies head injuries, seizures, and recent illnesses, and has no history of any serious medical conditions. The headaches do not align with her menstrual cycle. Her current stresses are applying to college, taking her SAT exam, and her soccer college scholarship. She is worried that her headaches are causing her to miss school and soccer practice and are

making her feel depressed. Her mother has a history of migraine headaches. There is no family history of strokes, brain tumors, or seizures. Vital signs, abdominal exam, and neurological exam are normal.

Questions

1. Based on the patient's history and presentation, which type of headache would you diagnose her with?
2. What are possible triggers for her symptoms?
3. What recommendations would you make?

Answers

1. This patient meets the diagnostic criteria of migraine with aura. The patient's headaches meet the criteria of headache restricted to one side of her head, throbbing pain, an aura, recurrent abdominal pain, nausea, and sensitivity to light or sound. The patient has a family history of migraine, and

Conclusion

Infants, children, and adolescents who present with a headache to an acute care or primary care setting may be facing a recurrent and chronic issue that will negatively affect their quality of life, or they may be in an emergency situation and require immediate assistance. The nurse, aware of the signs and symptoms of medical emergencies associated with a headache, can help expedite the process of rapid treatment of the child.

References

- American Migraine Foundation. (2019). *Sleep disorders and headache*. <https://americanmigrainefoundation.org/resource-library/sleep/>
- American Migraine Foundation. (2021). *Migraine in Children*. <https://americanmigrainefoundation.org/resource-library/migraine-children/>
- Atabaki, S. (2019). Skull fractures in children: Clinical manifestations, diagnosis, and management. In J.F. Wiley (Ed). *UptoDate*. <https://www.uptodate.com/contents/skull-fractures-in-children-clinical-manifestations-diagnosis-and-management>
- Bonthius, D. J. & Hershey, A. D. (2021). Headache in children: Approach to evaluation and general management strategies. In M.M. Torchia (Ed). *UptoDate*. <https://www.uptodate.com/contents/headache-in-children-approach-to-evaluation-and-general-management-strategies>
- Brazelton, T. & Gosain, A. (2020). Classification of trauma in children. In J.F. Wiley (Ed). *UptoDate*. <https://www.uptodate.com/contents/classification-of-trauma-in-children>
- Calhoun, A. H. (2021). Estrogen-associated migraine. In K.Eckler (Ed). *UptoDate*. <https://www.uptodate.com/contents/estrogen-associated-migraine>
- Centers for Disease Control and Prevention. (2019a). *Concussion danger signs*. https://www.cdc.gov/headsup/basics/concussion_danger_signs.html
- Centers for Disease Control and Prevention. (2019b). *HEADS UP to health care providers: Tools for providers*. <https://www.cdc.gov/headsup/providers/tools.html>
- Centers for Disease Control and Prevention. (2019c). *HEADS UP: Returning to sports and activities*. https://www.cdc.gov/headsup/basics/return_to_sports.html
- Centers for Disease Control and Prevention. (2020). *Children and Flu Antiviral Drugs*. <https://www.cdc.gov/flu/highrisk/children-antiviral.htm>
- Cleveland Clinic. (2017a). *Headaches in children and adolescents: Management and treatment*. <https://my.clevelandclinic.org/health/diseases/4225-headaches-in-children-and-adolescents-management-and-treatment>
- Cleveland Clinic. (2017b). *Migraines in children and adolescents*. <https://my.clevelandclinic.org/health/diseases/9637-migraines-in-children-and-adolescents>
- Cleveland Clinic. (2021). *Tension-type headaches in children and adolescents*. <https://my.clevelandclinic.org/health/diseases/11203-tension-type-headaches-in-children-and-adolescents>
- Edwards, M. S. & Baker, C. J. (2020). Bacterial meningitis in the neonate: Clinical features and diagnosis. In C. Armsby (Ed). *UptoDate*. <https://www.uptodate.com/contents/bacterial-meningitis-in-the-neonate-clinical-features-and-diagnosis>
- Evans, R. W. (2021). Postconcussion syndrome. In J.L. Wilterdink (Ed). *UptoDate*. <https://www.uptodate.com/contents/postconcussion-syndrome>
- Evans, R. W. & Whitlow, C. T. (2021). Acute mild traumatic brain injury (concussion) in adults. In J.L. Wilterdink (Ed). *UptoDate*. <https://www.uptodate.com/contents/acute-mild-traumatic-brain-injury-concussion-in-adults>
- Garza, I. & Schwedt, T. J. (2020a). Medication overuse headache: Etiology, clinical features, and diagnosis. In R.P. Goddeau (Ed). *UptoDate*. <https://www.uptodate.com/contents/medication-overuse-headache-etiology-clinical-features-and-diagnosis>
- Garza, I. & Schwedt, T. J. (2020b). Overview of chronic daily headache. In R.P. Goddeau (Ed). *UptoDate*. <https://www.uptodate.com/contents/overview-of-chronic-daily-headache>
- Gelfand, A. (2021). Pathophysiology, clinical features, and diagnosis of migraine in children. In R.P. Goddeau (Ed). *UptoDate*. <https://www.uptodate.com/contents/pathophysiology-clinical-features-and-diagnosis-of-migraine-in-children>
- Halstead, M.E., Walter, K.D., & Moffatt, K. (2018). Sport-related concussion in children and adolescents. *Pediatrics*, 142(6). <https://doi.org/10.1542/peds.2018-3074>
- Haridas, A. & Tomita, T. (2020a). Hydrocephalus in children: Clinical features and diagnosis. In J.F. Dashe (Ed). *UptoDate*. <https://www.uptodate.com/contents/hydrocephalus-in-children-clinical-features-and-diagnosis>
- Haridas, A. & Tomita, T. (2020b). Hydrocephalus in children: Management and prognosis. In J.F. Dashe (Ed). *UptoDate*. <https://www.uptodate.com/contents/hydrocephalus-in-children-management-and-prognosis>
- Haridas, A. & Tomita, T. (2020c). Hydrocephalus in children: Physiology, pathogenesis, and etiology. In J.F. Dashe (Ed). *UptoDate*. <https://www.uptodate.com/contents/hydrocephalus-in-children-physiology-pathogenesis-and-etiology>
- Johns Hopkins Medicine. (2019). *Headaches in children*. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/headache/headaches-in-children>
- Kacperski, J., Kabbouch, M. A., O'Brien, H. L., & Weberding, J. L. (2016). The optimal management of headaches in children and adolescents. *Therapeutic Advances in Neurological Disorders*, 9(1), 53–68. <https://doi.org/10.1177/1756285615616586>
- Kaplan, S. (2020a). Bacterial meningitis in children older than one month: Clinical features and diagnosis. In C. Armsby (Ed). *UptoDate*. <https://www.uptodate.com/contents/bacterial-meningitis-in-children-older-than-one-month-clinical-features-and-diagnosis>
- Kaplan, S. (2020b). Bacterial meningitis in children older than one month: Treatment and prognosis. In C. Armsby (Ed). *UptoDate*. <https://www.uptodate.com/contents/bacterial-meningitis-in-children-older-than-one-month-treatment-and-prognosis>
- Kelly, M., Strelzik, J., Landon, R., & DiSabella, M. (2018). Pediatric headache: Overview. *Current Opinion in Pediatrics*, 30(6), 748–754. <https://doi.org/10.1097/MOP.0000000000000688>
- Kotagal, S. (2019). Detailed neurologic assessment of infants and children. In J.L. Wilterdink (Ed). *UptoDate*. <https://www.uptodate.com/contents/detailed-neurologic-assessment-of-infants-and-children>
- Kroon Van Diest, A. M. & Powers, S. W. (2018). Cognitive behavioral therapy for pediatric headache and migraine: Why to prescribe and what new research is critical for advancing integrated biobehavioral care. *Headache: The Journal of Head and Face Pain*, 152, 27. <https://doi.org/10.1111/head.13438>
- Lay, C. L. & Sun-Edelstein, C. (2020). Brain tumor headache. In A.F. Eichler (Ed). *UptoDate*. <https://www.uptodate.com/contents/brain-tumor-headache>
- Mack, K. J. (2020). Acute treatment of migraine in children. In R.P. Goddeau (Ed). *UptoDate*. <https://www.uptodate.com/contents/acute-treatment-of-migraine-in-children>
- Mao, G. (2021). Concussion. Merck Manuals. <https://www.merckmanuals.com/home/injuries-and-poisoning/head-injuries/concussion>
- Mattoo, T. K. (2019). Evaluation of hypertension in children and adolescents. In M.S. Kim (Ed). *UptoDate*. <https://www.uptodate.com/contents/evaluation-of-hypertension-in-children-and-adolescents>
- Mattoo, T. K. (2020a). Definition and diagnosis of hypertension in children and adolescents. In M.S. Kim (Ed). *UptoDate*. <https://www.uptodate.com/contents/definition-and-diagnosis-of-hypertension-in-children-and-adolescents>
- Mattoo, T. K. (2020b). Epidemiology, risk factors, and etiology of hypertension in children and adolescents. In M.S. Kim (Ed). *UptoDate*. <https://www.uptodate.com/contents/epidemiology-risk-factors-and-etiology-of-hypertension-in-children-and-adolescents>
- Mattoo, T. K. (2020c). Nonemergent treatment of hypertension in children and adolescents. In M.S. Kim (Ed). *UptoDate*. <https://www.uptodate.com/contents/nonemergent-treatment-of-hypertension-in-children-and-adolescents>
- Mayo Clinic. (2018). High blood pressure in children. <https://www.mayoclinic.org/diseases-conditions/high-blood-pressure-in-children/symptoms-causes/syc-20373440>
- Mayo Clinic. (2019). Headaches in children. <https://www.mayoclinic.org/diseases-conditions/headaches-in-children/symptoms-causes/syc-20352099>
- Medscape. (n.d.a). Acetaminophen (OTC). <https://reference.medscape.com/drug/tylenol-acetaminophen-343346>
- Medscape. (n.d.b). Ibuprofen (Rx, OTC). <https://reference.medscape.com/drug/advil-motrin-ibuprofen-343289>
- Meehan, W. P. & O'Brien, M. J. (2020a). Concussion in children and adolescents: Clinical manifestations and diagnosis. In J.F. Wiley (Ed). *UptoDate*. <https://www.uptodate.com/contents/concussion-in-children-and-adolescents-clinical-manifestations-and-diagnosis>
- Meehan, W. P. & O'Brien, M. J. (2020b). Concussion in children and adolescents: Management. In J.F. Wiley (Ed). *UptoDate*. <https://www.uptodate.com/contents/concussion-in-children-and-adolescents-management>
- Migraine Research Foundation. (2021). *Raising money for migraine research*. <https://migraineresearchfoundation.org/about-migraine/migraine-facts/>
- Munoz, F. M. (2020). Seasonal influenza in children: Clinical features and diagnosis. In M. Torchia (Ed). *UptoDate*. <https://www.uptodate.com/contents/seasonal-influenza-in-children-clinical-features-and-diagnosis>
- Munoz, F. M. (2021). Seasonal influenza in children: Prevention and treatment with antiviral drugs. In M.M. Torchia (Ed). *UptoDate*. <https://www.uptodate.com/contents/seasonal-influenza-in-children-prevention-and-treatment-with-antiviral-drugs>
- O'Brien, H. (2021). Tension-type headache in children. In R.O. Goddeau (Ed). *UptoDate*. <https://www.uptodate.com/contents/tension-type-headache-in-children>
- Pappas, D. (2020a). The common cold in children: Clinical features and diagnosis. In M.M. Torchia (Ed). *UptoDate*. <https://www.uptodate.com/contents/the-common-cold-in-children-clinical-features-and-diagnosis>
- Pappas, D. (2020b). The common cold in children: Management and prevention. In M.M. Torchia (Ed). *UptoDate*. <https://www.uptodate.com/contents/the-common-cold-in-children-management-and-prevention>
- Patel, N. & Walker, N. (2016). Clinical assessment of hypertension in children. *Clinical Hypertension*, 22(15). <https://doi.org/10.1186/s40885-016-0050-0>
- Pentima, C. D. (2021). Viral meningitis: Clinical features and diagnosis in children. In C. Armsby (Ed). *UptoDate*. <https://www.uptodate.com/contents/viral-meningitis-clinical-features-and-diagnosis-in-children>
- Schytz, H.W. (2021). Post-traumatic headache. In R.P. Goddeau (Ed). *UptoDate*. <https://www.uptodate.com/contents/post-traumatic-headache>
- Shutzman, S. (2021). Minor head trauma in infants and children: Evaluation. In J.F. Wiley (Ed). *UptoDate*. <https://www.uptodate.com/contents/minor-head-trauma-in-infants-and-children-evaluation>
- Smith, J. (2018). *Ruling out secondary headache*. <https://practicalneurology.com/articles/2018-mar-apr/ruling-out-secondary-headache>
- Tasker, R. C. (2020). Elevated intracranial pressure (ICP) in children: Clinical manifestations and diagnosis. In J.F. Wiley & J.L. Wilterdink (Ed). *UptoDate*. <https://www.uptodate.com/contents/elevated-intracranial-pressure-icp-in-children-clinical-manifestations-and-diagnosis>
- Tricarico, E. (2017). How can neurologists manage pediatric migraine? *Neurology Reviews*, 25(3), 29. <https://www.mdedge.com/neurology/migraineresourcecenter/article/132593/headache-migraine-how-can-neurologists-manage>
- Vavilala, M. S. & Tasker, R. C. (2019). Severe traumatic brain injury in children: Initial evaluation and management. In J.F. Wiley (Ed). *UptoDate*. <https://www.uptodate.com/contents/severe-traumatic-brain-injury-in-children-initial-evaluation-and-management>
- Wald, A. (2021a). Acute bacterial rhinosinusitis in children: Clinical features and diagnosis. In M.M. Torchia (Ed). *UptoDate*. <https://www.uptodate.com/contents/acute-bacterial-rhinosinusitis-in-children-clinical-features-and-diagnosis>
- Wald, A. (2021b). Acute bacterial rhinosinusitis in children: Microbiology and treatment. In M.M. Torchia (Ed). *UptoDate*. <https://www.uptodate.com/contents/acute-bacterial-rhinosinusitis-in-children-microbiology-and-treatment>

Armed with the knowledge of the possible types of headaches, both primary and secondary; the techniques of the neurological physical exam; and signs and symptoms, depending on the child's age, the nurse can be an advocate for the health, safety, and the social and psychological well-being of the child with a headache.

CRISIS RESOURCE MANAGEMENT FOR HEALTHCARE PROFESSIONALS

Self-Assessment Answers and Rationales

1. The correct answer is B.

Rationale: She has a score of 15, which is the highest score, but is still considered in the range of possible "mild head injury" (score of 13-15). Although the Glasgow Coma Scale is helpful to determine level of consciousness, she would have a neurological exam and physical exam as well.

2. The correct answer is B.

Rationale: Aura is a warning sign that a migraine is about to begin. An aura can be blind spots, blurred or distorted vision, brightly colored or flashing lights, sensory changes, or speech disturbances. It usually occurs 10-30 minutes before a migraine but can happen as early as the night before.

3. The correct answer is B.

Rationale: Cluster headaches are not common in children. They are less common than migraines and tension headaches. Cluster headaches are briefer in duration and more frequent than migraines, and are usually on one side of the head.

4. The correct answer is A.

Rationale: Secondary headaches are headaches that result from another medical condition. Secondary headaches are usually because of viral illnesses, but also may be caused by central nervous system infection, brain tumor, intracranial hemorrhage, head trauma, or severe hypertension. Migraine, tension, and cluster headaches are primary headaches.

5. The correct answer is A.

Rationale: Primary hypertension is related to the male sex, African American ethnicity, genetics, obesity, stress, and salt intake. The prevalence of hypertension in children is about 1-3%. Children greater than 3 years old should have their blood pressure measured routinely. Primary hypertension usually shows no symptoms.

6. The correct answer is D

Rationale: The flu has the potential to develop into pneumonia and even death in children. It is important for children to receive the flu vaccination starting at 6 months of age.

7. The correct answer is D.

Rationale: Headaches that are the "worst headache of my life" and progressively worsening headaches should be considered a red flag. This could indicate a brain hematoma. The nurse should ask more follow up questions about his head trauma.

8. The correct answer is A.

Rationale: Return to sports should be gradual and progressive. It starts with light aerobic activity, followed by moderate activity, heavy non-contact activity, full contact, and then the child may return to competition. Athletes may only progress to the next step if they are not having any symptoms.

9. The correct answer is B.

Rationale: Aspirin should never be given to infants or children or adolescents. Aspirin has been linked to Reye's syndrome, an extremely dangerous illness in the pediatric population that can cause swelling in the liver and the brain.

Rehabilitation of the Older Adult

2 Contact Hours

Release Date: October 16, 2022

Expiration Date: October 5, 2025

Faculty

Kellie L. Kahveci, PhD, APRN, AGPCNP-BC, GNP-BC, CNE, has been a practicing RN since 1983. Her clinical background includes critical care, primarily coronary care, pulmonary medicine, corporate marketing, home healthcare (medical-surgical, infusion therapy, and cardiovascular), and geriatrics. In all these roles, she held leadership positions. She has been certified as an adult gerontology primary care and gerontology nurse practitioner since 2003. As an NP clinically, she made house calls; made home-based transitional care visits; and worked at a Veterans Administration Community Based Outpatient Clinic and Geriatric Medicine Outpatient Clinic as well as assisted living, dementia care, skilled nursing, and nursing home settings. Dr. Kahveci is a certified nurse educator who taught undergraduate and graduate nursing. She is currently a clinical assistant professor and program director for the Adult-Gerontology primary care program at the University of Texas-Arlington.

Kellie L. Kahveci has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Reviewer: Chris Ireland, PT, DPT, OCS, received his DPT from the Medical College of Georgia in 2009, and in 2012 he received his ABPTS specialist certification in orthopedics. After spending eight years in private practice, Chris transitioned into academia and currently serves as a faculty member and the director of clinical education for the DPT program at Faulkner University, where his teaching focus is on orthopedics, movement science, and exercise physiology. Chris is currently working on getting his PhD in health and human performance and is scheduled to complete his dissertation in summer 2023. In his free time, Chris enjoys all things outdoors, whether at the beach or in the mountains as he experiences life with his four girls and wife, Abby.

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

Course overview

Principles of rehabilitation are of major importance when working with older adults. Rehabilitation can occur in many settings, and is often determined by the patient's medical insurance, goals, and physical ability. Advocating for the use of specialized skills and training of other disciplines increases opportunities for improved function, independence, and quality

of life for the patient. This course discusses physiological aspects of aging, special considerations for older adults in rehabilitation settings, goals of geriatric rehabilitation, benefits of exercise, and nursing interventions that promote restorative care. The roles of the interprofessional team members in rehabilitation are also reviewed.

Learning objectives

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

- Define rehabilitation as it pertains to the functional and physical well-being of an individual.
- Examine the roles of members comprising the interdisciplinary team.
- Describe common goals of rehabilitation in the older adult population.

- Describe common reasons older adults require rehabilitation services.
- Review payer sources for rehabilitation services.
- Analyze the role of exercise in both rehabilitation and aging.
- Evaluate options for older adults if their individual rehabilitation goals are not met.

How to receive credit

- Read the entire course online or in print which requires a 2-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

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

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

It is the policy of Colibri Healthcare, LLC not to accept commercial support. Furthermore, commercial interests are prohibited from distributing or providing access to this activity to learners.

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.

©2023: All Rights Reserved. Materials may not be reproduced without the expressed written permission or consent of Colibri Healthcare, LLC. The materials presented in this course are meant to provide the consumer with general information on the topics covered. The information provided was prepared by professionals with practical knowledge of the areas covered. It is not meant to provide medical, legal, or professional advice. Colibri Healthcare, LLC recommends that you consult a medical, legal, or professional services expert licensed in your state. Colibri Healthcare, LLC has made all reasonable efforts to ensure that all content provided in this course is accurate and up to date at the time of printing, but does not represent or warrant that it will apply to your situation nor circumstances and assumes no liability from reliance on these materials. Quotes are collected from customer feedback surveys. The models are intended to be representative and not actual customers.

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.

HISTORY OF REHABILITATION AND THE ROLE OF NURSES

The concept of rehabilitation began gaining traction in Western societies in the early twentieth century in response to societal needs. Military service members, first in World War I and in greater numbers in World War II, who previously may have succumbed to their injuries were surviving and needed specialized care to achieve optimum function. In addition, the poliomyelitis epidemic was impacting individuals of all ages and leaving them with significant disabilities. These people required services to regain functional ability. During this time, nurses were trained at the first schools of physical therapy, in Washington DC, to use movement to treat patients with polio. In 1921, Mary McMillan, the first physical therapy aide, established the American Women's Physical Therapeutic Association, which later became the American Physical Therapy Association. Due to her significant contribution in reconstruction aide services, she is known as the mother of physical therapy. In 1935, federal assistance to fund rehabilitation care was made available through the Social Security Act. Title V of the act included Maternal and Child Health and the Crippled Children's programs, addressing the needs of women and children suffering the sequelae of polio. Federal support continued through the Veterans Administration, the advent of workers' compensation programs, and other payment mechanisms. The social and federal policy momentum continued, and in 1954, amendments were added to

the Hill-Burton Act, which increased funding for the construction of rehabilitation hospitals (Sandel, 2019).

Medicine and physical therapy (PT) are credited with establishing the specialty of physical rehabilitation and organizing its components. Nurses were instrumental in delivering care to individuals with disabilities for decades, including caring for veterans with polio and post-polio syndrome. In 1964, the American Nurses Association (1988) and the Association for Rehabilitation Nurses recognized rehabilitation nursing as a specialty. The rehabilitation nurse specialty was defined as "the diagnosis and treatment of human responses of individuals and groups to actual or potential health problems stemming from altered functional ability and altered lifestyle." This specialty acknowledgment opened doors for new career opportunities in nursing, which included roles with insurance companies and advanced practice roles in the Veterans Administration (Moffat, 2003; Spasser et al., 2006). Finally, in 1984, The Association of Rehabilitation Nurses (ARN) established credentialing for Certified Rehabilitation Nurses (CRRN). These nurses are recognized for their expertise in assisting individuals of all ages with acute and chronic disabilities to "restore, maintain, and promote optimal health."

REHABILITATION DEFINED

There has been no universally accepted definition of rehabilitation, causing confusion for patients, healthcare providers, researchers, and payers. Negrini et al. (2022) defined rehabilitation as “a multimodal, person-centered, collaborative process including interventions targeting a person’s capacity (by addressing body structures, functions, and activities/ participation) and/or contextual factors related to performance with the goal of optimizing the functioning of persons with health conditions currently experiencing disability or likely to experience disability, or persons with disability.” Negrini et al. (2022) propose this as the universal definition for rehabilitation specifically related to research and suggest that if the definition

extends to other areas in healthcare, less confusion may occur. Stucki et al. (2007) proposed “Rehabilitation aims to optimize functioning and minimize the experience of disability of people with health conditions based on the comprehensive understanding of human functioning. The most comprehensive understanding of human functioning is based on the integrative model of human functioning, disability and health (ICF Model)” (p. 282). This model tries to demonstrate that the path to disability is not a linear process, but one that is influenced by biological, personal, social, and biopsychosocial factors (Halter, et al., 2022). This model looks beyond disease and mortality to focus on how people live with their disabling conditions.

GOALS OF REHABILITATION

For older adults, rehabilitation is multifaceted and is often dictated by the desired goals. Rehabilitation may be necessary to improve function, delay decline, or maintain current levels. Older adults often have chronic illnesses, and the onset of an acute illness or injury may make recovery more difficult or add to their general decline in function, necessitating rehabilitation (Colón-Emeric, et al., 2013). The primary goal of rehabilitation is often to allow the person to remain independent and in their own home.

An important step into setting desired goals is to evaluate the cause of the disability for which rehabilitation is required (Halter, et al., 2022). While many disabling conditions may be the result of a common pathway, the cause could impact the desired treatment and outcomes. For example, shoulder pain could result from arthritis or from a rotator cuff tear. While exercise may help with strengthening the shoulder muscles for arthritis,

the rotator cuff may need surgery to improve functioning and decrease pain. Determining the initial cause of the dysfunction would impact the goals of treatment. The patient should also be evaluated for other comorbidities that may affect rehabilitation to determine the best site for rehabilitation to occur (Halter, et al., 2022).

Self-Assessment Quiz Question #1

The rehabilitation nurse provides individual treatment to the patient with a disability to help the patient stay focused on which goal?

- a. Returning to normal
- b. Independence
- c. Returning to work
- d. Primary health promotion

DETERMINING REHABILITATION POTENTIAL

The patient with a medical condition is evaluated for rehabilitation potential once the acute illness has resolved. At times, the medical condition will need to be treated at the same time as rehabilitation efforts, such as the patient with an extended stay in intensive care. Other factors to determine rehabilitation benefits include motivation, cognition, and prior functional status (Halter, et al., 2022).

Several factors may influence the success of rehabilitation:

- Cognitive impairment: Rehabilitation goals may be more limited, and the patient may need shorter periods of time, building upon skills the patient already possesses.
- Disability has been present for a long time: Goals may be more limited and directed to treatment of deconditioning.
- Patient has limited motivation: Goals need to be well defined and reached in measurable steps.
- Patient had prior rehabilitation for the same problem: Rehabilitation may be limited unless new functional decline has occurred.
- Terminal illness: Treatment directed to reducing the burden of the caregiver and reducing patient discomfort.
- Severity of disability: Patients who experience mild disability may not require intervention while those with severe disability may experience limited benefit.
- Social and cultural considerations: The absence of a caregiver, financial limitations, and cultural beliefs may limit use of certain techniques or technologies
- Malnutrition: Patient is unable to build muscle, leading to rehabilitative interventions being limited until nutritional status is improved (Halter, et al., 2022).

Self-Assessment Quiz Question #2

What is a basic concept about rehabilitation the nurse considers when formulating discharge plans for patients?

- a. Rehabilitation needs are met best by the patient's family.
- b. Rehabilitation is a specialty area with unique methods for meeting clients' needs that cannot be started while the patient is in the hospital.
- c. Immediate or potential rehabilitation needs are exhibited by patients with health problems.
- d. Patients who are returning to their home after hospitalization do not require rehabilitation.

Box 1: Review of Medicare Types

Part A: Hospital Coverage

Inpatient hospital stay	Hospice
Skilled nursing care	Home care

Part B: Medical Coverage

Doctor visits	Medical equipment
Surgery	Preventative exams

Labs

Part C: Medicare Advantage Plans

Wellness exams	Hearing exams
Vision exams	Eyeglasses and hearing aids may be partially covered.

Part D: Prescription Drug Coverage

Prescriptions drugs not covered by part A
If an individual has other insurance coverage, such as Tricare, Medicare will pay as the primary insurance provider, with the other insurance acting as primary payer for any services that Medicare does not cover (Centers for Medicare and Medicaid Services (CMS)).

REHABILITATION SETTINGS

Acute care hospital

Older adults receiving rehabilitation services in an acute care hospital must have an illness or procedure that requires hospital admission. Therapies are then determined by the ordering provider and are based on the needs and acuity of the older adult.

Rehabilitation begins in the hospital setting for older adults with acute illness, fracture, or injury. Additional rehabilitation is dependent upon the individual's potential for improvement and their functional status before the event that hospitalized them. The amount of time the individual can tolerate in therapy daily, their payer status, the availability of the services relative to the patient's location, and the preference of the patient and family also affect rehabilitation status. Regardless of the setting of care, rehabilitation care is integral to the care of older adults and to geriatric practice. It is the primary reason for admission to post-acute hospital settings (Chang et al., 2011).

Post-acute care

Inpatient Rehabilitation Facilities. Inpatient rehabilitation facilities are also known as rehab hospitals. They provide intensive rehabilitation services to patients with complex conditions. They may be located as freestanding facilities or in specialized units within acute care hospitals. They specialize in the rehabilitation of patients with complex medical needs who require intensive daily therapy to help regain independence and return home or to the next setting of care.

An inpatient rehab facility offers acute care for those who need a higher level of rehabilitation. The older adult must meet the requirements for three overnight stays in the acute care hospital, known as the "3-day rule" based on CMS regulations. The individual is admitted to the hospital for three or more consecutive days, and those three days do not count the day of discharge or any pre-admission time they may spend in an emergency department or any outpatient status.

The individual must be able to tolerate and require at least three hours of intensive therapy services daily and have a qualifying diagnosis requiring a registered nurse (RN) with training and expertise in rehabilitation. The CMS implemented the three-hour rule in 1983 based on existing research (Forrest et al., 2019). More recent studies question the need for three hours per day as a mandated amount of time for rehabilitation, noting those whose care was consistent with the rule did not have more improvement in function or a shorter length of stay than patients whose care did not follow this rule (Forrest et al., 2019). Older adults in inpatient rehabilitation therapy will see a physician, nurse practitioner (NP) or physician's assistant (PA) two to three days per week. Per CMS regulations, patients may have up to 100 days per benefit period. The days are paid in increments:

- Days 1–60: 100% after the \$1,556 insurance deductible is met
- Days 61–90: \$389 coinsurance/daily
- Days 91 and over: \$778 coinsurance/daily

After this period, patients may wish to use their lifetime reserve days. Medicare beneficiaries have 60 lifetime reserve days, which provide coverage for an additional amount of time after the benefit period expires. After these lifetime reserve days are exhausted, the individual pays all costs (CMS, 2022). Older

Outpatient therapy

Outpatient rehabilitation centers are medical facilities that provide outpatient medical, physical therapy, and social or psychological services in a coordinated manner. Services may be located in a freestanding center or via home health where the patient is not admitted or staying overnight. Patients visiting a clinic tend to have conditions that, while acute in nature, are less medically complex, with fewer comorbidities than those in an inpatient rehabilitation center.

Most older adults in the U.S. have hospital insurance coverage via Medicare Part A or another insurance provider. Those who do not have hospital insurance coverage will be billed as a private payer and may need to seek charity coverage or payment plans. Depending on the policy, private insurance may cover the hospital stay. The services covered and the amount of coverage may vary. Medicare, Medicare Advantage programs, Medicaid, Tricare, the Veterans Administration, and workers' compensation all have some coverage for rehabilitation services. For older individuals without insurance coverage, rehabilitation services after hospital discharge may be cost-prohibitive (Centers for Medicare and Medicaid Services [CMS], 2022). Patients and families may always appeal if a decision not to pay is made. However, an appeal does not mean payment will be made, and the patient may ultimately be responsible for the cost.

adults who qualify for inpatient rehabilitation generally have robust functional status before the hospital event that requires rehabilitation and have excellent potential for recovery.

Skilled Nursing Facility (SNF). A skilled nursing facility may be the best option for those with prior functional impairment with less potential for improved functioning. These older adults must also have a three-night acute hospital stay to qualify for a skilled nursing facility. The person is usually unable to tolerate three hours of combined therapies daily.

Older adults in a skilled nursing facility must participate in therapies and nursing services daily (defined as five days per) and require a qualifying diagnosis. The requirements for being seen by a provider are the same as with inpatient rehabilitation. Like inpatient rehabilitation, skilled nursing services are paid for in segments of time:

- Days 1–20: No coinsurance.
- Days 21–100: Up to \$194.50 per day
- After day 101: Patient responsible for 100% of the costs

The older adult should expect to see a provider two to three days a week during rehabilitation to initiate and manage medical care and provide oversight of the rehabilitation services (CMS, 2022).

Healthcare Consideration: Criteria for admission to Inpatient Rehabilitation vs. SNF facilities.

Inpatient Rehabilitation Facilities

Three overnight stays in the acute care hospital

Three hours of intensive therapy services daily

Qualifying diagnosis requiring an RN with training and expertise in rehabilitation

Skilled Nursing Facility (SNF)

Three overnight stays in the acute care hospital

Unable to tolerate three hours of combined therapies daily

Participate in therapies and nursing services daily (defined as five days per week)

Qualifying diagnosis requiring an RN with training and expertise in rehabilitation

Freestanding Therapy Center. To attend a freestanding therapy center, the older adult must have a qualifying diagnosis and a provider's order for services. These centers provide physical therapy, occupational therapy, and speech and language pathology therapy (ST). Nursing care is not provided. The individual must be able to get to and from the freestanding facility.

Medicare coverage for outpatient therapy includes physical therapy, speech-language pathology, and occupational therapy under Medicare Part B coverage. Medicare Advantage is obligated to cover outpatient therapy services as well, while other insurances may vary. Payment under the Medicare benefit is 80% of the allowed amount. Once the deductible is met, the coinsurance is 20%. Medicare will pay \$2,150 (or \$1,750, the 80% allowable) for PT or ST services before requiring an indication that continued services are medically necessary and \$2,150 for OT before requiring an indication that continued services are medically necessary (CMS, 2022).

Home Health. To qualify for home healthcare rehabilitation therapies, the older adult must have a qualifying diagnosis, services must be able to be delivered safely in the home environment, and the individual must meet homebound criteria. In addition, the home healthcare agency must be a certified provider with CMS. Each certification period is 60 days, the criteria must be met in each period, and the individual must demonstrate improvement. Services offered include intermittent skilled and rehabilitative nursing that can focus on teaching adaptive aspects of self-care; medical social work; and physical, occupational, and speech therapy. For individuals needing more assistance with activities of daily living, a home health aide may visit if another skilled professional is working with the patient. For maintenance therapy, an ongoing need must be documented. Maintenance therapy is designed to maintain patient function, prevent decline, or slow deterioration. These services are covered under insurance only if the needed

interventions are high in complexity. The cost for these services to the older adult with Medicare Part B is \$0 after the deductible is met (CMS, 2022).

Private Payment. Some older adults and their families may choose to privately pay for rehabilitation therapy services. These are generally direct contracts with service providers, though many therapists will require a provider's order for services. The services and amount of assistance provided are determined by the older adult and therapist.

Self-Assessment Quiz Question #3

Inpatient rehabilitation is covered primarily by which Medicare plan part?

- a. Medicare Part A.
- b. Medicare Part B.
- c. Medicare Part C.
- d. Medicare Part D.

Durable Medical Equipment. Durable medical equipment (DME) is a covered benefit through Medicare for older adults discharged from any site of rehabilitation or receiving home healthcare rehabilitation at home. Most durable medical equipment can be procured for the patient with an order from a provider and a qualifying diagnosis. Medicare pays for 80% of the approved amount for covered DME (CMS, 2022). Providers should be familiar with their state practice act regarding cash-based services and the referral requirements.

COMMON REASONS OLDER ADULTS REQUIRE REHABILITATION SERVICES

The prevalence of hospital-associated disability for adults over 70 years of age, who require an acute hospitalization is 30% (Lloyd et al. 2020). People with a hospital-associated disability (Covinsky et al., 2011) may be defined as those who are newly unable to live independently after hospitalization. Many of these individuals will require some level of rehabilitation services. Twenty percent of community-dwelling older adults living independently in the U.S. reported using rehabilitation care (Gell et al., 2017). Of those individuals, most required rehabilitation for musculoskeletal problems. Seventy-two percent of the care recipients reported improvement in their functional status, while 75% stated they had attained their goals.

The Centers for Medicare and Medicaid Services (CMS) (2021) recognizes 13 conditions that qualify for reimbursement for older adults receiving inpatient rehabilitation: stroke, spinal cord injury, congenital deformity, amputation, multiple major traumas, fractured hip, hip or knee replacement, brain injury, burns, active polyarthritis, systemic vasculitis with joint involvement, specified neurologic conditions, or severe or advanced osteoarthritis. The conditions most often seen in all rehabilitation settings are (CMS, 2021):

- Arthritis 70%
- Osteoporosis 27.8%

- Heart disease 29.4%
- Diabetes 26.8%
- Cancer 22.7%
- Stroke 9.7%
- Pulmonary disease 20.3%
- Falls 47.9%
- Balance problems 43.7%

Most of these individuals have more than one medical problem, and mental health problems often complicate their care. Sixteen percent of these older adults are depressed, 13% are anxious, and nearly 90% have some memory impairment. These additional comorbidities can interfere with the older adult's ability to meet rehabilitation goals (Gell et al., 2017).

Self-Assessment Quiz Question #4

A nurse is reviewing the most common conditions that qualify for inpatient rehabilitation. Which one of these conditions is not commonly seen in inpatient rehabilitation?

- a. Brain injury.
- b. Lower leg amputation.
- c. Stroke.
- d. Diabetes.

INTERDISCIPLINARY TEAMS

Interdisciplinary teams are integral to rehabilitation. This was true in the early days of rehabilitation hospitals and long-term care after World War II (Baldwin, 1996) and remains true today. Some federal legislation mandates the use of interdisciplinary teams while delivering federally funded services. Team members and roles vary by location, and the population served. Interdisciplinary teams should include the following members.

The **patient** is the most crucial member of the team. Without the patient, the team has no purpose. The patient is responsible for fully participating, if possible, in decision-making regarding the care goals and plan for care. The focus of the whole team should be patient-centered care, that is, "care that is respectful of, and responsive to, individual patient preferences, needs and values, and [that ensures] patient values guide all clinical decisions"

(Institute of Medicine, US Committee on Quality of Healthcare in America, 2002).

Family and caregivers are often the backbones of rehabilitation. These individuals may provide the patient with emotional, physical, financial, and caregiving support. The importance of family involvement in patient care has increased due to the aging population and the complexity of chronic disease. Involving family members in decision-making can reduce patient stress, contribute to patient safety, and prevent recurrences of chronic disease.

Physicians from many different specialties may participate in the patient's care depending on individual needs. These medical providers assess, diagnose, and devise plans of care with modifications as needed based on the patient's response. Some rehabilitation settings are led by a physiatrist, a physician

specializing in individuals with impaired physical functional ability. If the primary care provider is not directly involved in the patient's care, it is essential that upon discharge, the primary care provider is made aware of the patient's course of rehabilitation and the patient's status.

Registered nurses may be employed in a variety of roles.

- As utilization reviewers, case managers, nurse navigators, or other titles. They may review documentation and provide guidance regarding the length of stay, payment guidelines, and so on. These nurses are experts who are knowledgeable about insurance coverage and are fierce patient advocates.
- Rehabilitation nurses provide day-to-day care for the patient. The nurse's role in patient and family/caregiver education is crucial as it relates to the patient's ability to perform activities of daily living and instrumental activities of daily living moving forward. The nurse reinforces the education provided by therapies and encourages the patient to practice what has been learned during therapy sessions. The nurse coordinates and updates the team on day-to-day patient status in collaboration with other nursing team members and is a keen observer of cognitive, behavioral, and functional status.

Licensed vocational (LVN) or practical nurses (LPN) serve on rehabilitation teams and work under the direction of the RN. They serve as healthcare professionals with duties that generally include providing routine care, observing patients' health, assisting doctors and registered nurses, and communicating with patients and their families. They provide ongoing and accurate assessments, administer medications, change dressings, ensure patient care plans are being followed, and supervise aides.

Aides: Rehabilitation/patient/home healthcare/medication may spend more time with the patient than any other team member and may have great insights into how the older adult is doing overall. They assist patients with activities of daily living, and report to nurses or other members of the interprofessional team about patient status with self-care and activities of daily living. Aides may provide the best information regarding the patient's dietary intake, toileting, skin condition, and behaviors. Home care and personal care aides typically need a high school diploma or equivalent. Aides may have certifications in their area. In some care settings, aides may be specially certified to administer medications.

Physical therapists specialize in human movement and work with older adults and their families/caregivers to prevent, identify, assess, and treat threats to physical mobility and independence. They assist patients with strength, balance, and mobility and often provide exercise plans for patients to do on their own to help their progress. Physical therapists may also recommend equipment to facilitate mobility.

Occupational therapists possess advanced knowledge to assist with activities integral to daily life. These activities may include toileting, cooking, personal care, bathing, eating, and so on. Occupational therapists may recommend adaptive equipment and/or environmental modifications to facilitate the older adult's highest level of function and adaptation.

Speech and language pathology professionals are experts in communication skills, including voice, speech, hearing, and language. They also assess feeding and swallowing. Speech and language pathologists may address both social and cognitive aspects of speech and make recommendations. The ST may recommend communication modifications, skills for feeding, and changes in consistencies for oral intake, among other interventions.

Advanced practice registered nurses/physician assistants deliver medical care management to older adults receiving rehabilitation services. They often work in tandem with the physician to direct the patient's care. They take the patient's health history, perform clinical assessments, diagnose the patient, provide treatment, and evaluate the recommended treatment plan.

Dietitians/nutritionists specialize in assessing and diagnosing nutritional status and translating this into an actionable dietary plan for the older adult. They use evidence-based practice along with clinical experience to help patients prevent and manage chronic conditions. Dietitians perform nutrition-focused exams to identify malnutrition and manage the nutrition care process to improve the health of patients. They play an integral role in family and caregiver education regarding nutrition and a dietary plan for the patient.

Psychologists/neuropsychologists work with the team, the individual, and their family to evaluate the patient's cognitive status and behavioral disorders. They help the patient/family/caregivers adjust to their new normal life, make recommendations regarding management, and provide patient and caregiver education regarding coping and management strategies.

Social workers often function as discharge planners, though sometimes this role overlaps with that of the registered nurse. The social worker works closely with the patient's caregivers and other healthcare providers to address barriers to accessing durable medical assistance and home medications. They may make a home visit to assess both the physical and social situation at the patient's home. The social worker prepares the older adult and their caregivers for the realities of life at home. They help to identify options and provide referrals to community-based resources such as home healthcare and long-term care facilities.

Chaplains assist with spiritual support for patients, families, and caregivers. In addition, they often help patients connect with the spiritual aspects of their care and may also provide needed spiritual support to the team. They are able to assess, respond, and communicate issues of spiritual distress and interventions to other members of the team. They ensure beliefs and practices are identified and integrated into the patient's care. They educate the healthcare team on spiritual, religious, existential, or cultural components that influence beliefs and values that influence the plan of care.

Music therapists skillfully incorporate music, movement, and dance into the care of the patient to help with cognitive links to previous memories and provide a psychological uplift to patients. Music therapists use techniques like relaxation, guided imagery, sound, music, and rhythm in a way to engage clients.

Pet therapists are trained pet owners who provide their pets to assist with care. The pet helps by providing unconditional love and acceptance, which can help to calm and reassure a distressed older adult. Pet therapy is also referred to as animal-assisted therapy. Pet therapy builds on the pre-existing human-animal bond and uses that connection to accelerate recovery. In rehabilitation, the patients may feel even more motivated to stick to their therapy when accompanied by a pet.

Recreational therapists are expertly educated to help individuals integrate recreational and leisure activities into their lives to help maintain the physical, mental, and emotional well-being of their clients. Recreational therapists seek to improve or maintain the patient's physical, cognitive, social, emotional, and spiritual functioning to facilitate full participation in life. A variety of techniques are used, such as arts and crafts, animal interactions, sports, games, drama, music, and community outings.

Respiratory therapists are uniquely qualified to assist the patient with pulmonary support and assisted ventilation if necessary. The respiratory therapist also educates patients, families, and caregivers on the safe use of equipment if needed.

Prosthetists prescribe, design, fit, and reassess adaptive devices applied to the body to replace a missing part. They work in close collaboration with PT and OT. They are trained to assess the needs of the user and determine the precise technical specifications of prostheses and adaptive devices.

Orthotists, like prosthetists, prescribe, design, fit, and reassess but do this for devices that are placed on the body to aid in

biomechanical alignment, correct deformity, and protect and support injuries to improve both pain and mobility. These nonclinician team members work with therapists to determine adaptive equipment needs. Other team members may participate (Mauk, 2012; Physiopedia.com, n.d.)

Leadership of the interdisciplinary team may vary depending on the patient's status and complexity and may change from day to day. The team should acknowledge that the member with the most experience or knowledge in a given situation should lead the others in the management of care. A successful interdisciplinary team has the patient's needs and the patient's end goal in mind. The team involves the patient and their family or carer in setting goals and every intervention to ensure the patient feels heard and valued. The older adult's course may follow the initial collaborative plan or may be interrupted by complications. The team must be able to adapt to changes in patient condition and make modifications based on the needs of the patient, family, and caregivers. Boundaries between disciplines often overlap, and it is imperative for members to understand when the patient's needs exceed their expertise and hand them off to the appropriate team member. The patient is always at the center of the team and should be included in team meetings when their care is discussed.

Much has been written about high-functioning teams. Team Strategies and Tools to Enhance Performance and Patient Safety

(TeamSTEPPS) was developed by the Agency for Healthcare Research and Quality (AHRQ) and the U.S. Department of Defense (DoD). The system is well researched and can improve team collaboration and communication (Agency for Healthcare Research and Quality, 2022).

Self-Assessment Quiz Question #5

Select the member of the healthcare team that is paired with one of the main functions of this team member.

- a. Occupational therapist: Gait exercises.
- b. Physical therapist: The provision of assistive devices to facilitate the activities of daily living.
- c. Speech and language therapist: The treatment of swallowing disorders.
- d. Case manager: Ordering medications and treatments.

Evidence-based practice! A quasi-experimental and one-group pretest–posttest design research study was conducted with RNs on a rehabilitation unit. RN participants acknowledged that applying the TeamSTEPPS communication strategies improved their perceptions of team communication and teamwork. Doing so also improved interprofessional collaboration during the transition of care and enhanced teamwork on the rehabilitation unit (Nguyen, 2020).

THE ROLE OF EXERCISE IN BOTH REHABILITATION AND AGING

Physical activity is defined as “any bodily movement produced by skeletal muscles that significantly increases energy expenditure,” and exercise is defined as “a subcategory of physical activity that is planned, structured and repetitive with or without the explicit intent of improving or maintaining of one or more components of physical fitness” (Caspersen et al. 1985). In contrast, the U.S. Department of Health and Human Services (HHS) defines inactivity as “doing no activity more than activities of daily living” (2018).

Exercise and physical activity are necessary for aging well. Loss of muscle function and cardiopulmonary fitness results in an impaired ability to care for oneself and complete activities of daily living. Physical activity can prevent chronic disease, improve quality of life, and mitigate existing chronic illness (Izquierdo et al., 2021; Mora & Valencia, 2018). Older adults who require rehabilitation services have the benefit of exercise specialists to help them develop a plan for routine exercise, monitoring and encouraging them through the early part of either establishing or re-establishing an exercise routine. Upon discharge from rehabilitation, they will receive a home exercise plan with specific exercises and guidelines to follow to increase or maintain their function and mobility.

The benefits of exercise are clear, yet 29.6% of adults ages 65–74 in the U.S. report they are inactive. This lack of movement worsens with age, with 35.3% of those age 75 and older reporting inactivity, meaning they do only those activities needed to care for themselves daily (Watson, 2016). Regular physical activity is medicine. Being physically active makes performing all basic activities of daily living easier.

Active older adults fall less frequently, and when they do fall, they are less likely to sustain a threatening injury. With regular physical activity weight control is easier, and weight loss is facilitated when an individual is able to burn more calories than they consume. Additionally, mood, sleep, and cognition are improved with regular activity.

Evidence-based practice: Falls Based on available data, it is estimated that more than one out of four older adults fall each year, but fewer than half tell their healthcare providers about their falls. Falling once doubles the chances of falling again. Every year, three million older adults are treated in emergency departments for fall injuries.

Over 800,000 patients are hospitalized annually because of a fall, most often due to injuries to the head and hip fractures. Every year, at least 300,000 older adults are hospitalized for hip fractures, and more than 95% of hip fractures are caused by falling. Falls are also the most common cause of traumatic brain injury. Many factors contribute to falling, and the more risk factors a person has, the greater their chances of falling. Risk factors (Centers for Disease Control and Prevention [CDC], 2021):

- Lower body weakness
- Vitamin D deficiency
- Difficulties with walking and balance
- Use of certain medications, such as sedatives, antidepressants, and many over-the-counter medications
- Vision problems
- Foot pain or poor footwear
- Home hazards or dangers such as broken or uneven steps and throw rugs or clutter that can be tripped over

The HHS (2018) promotes the following recommendations and notes for older adults.

- Move more and sit less; even some exercise is beneficial.
- Perform moderate-intensity physical activity 150 to 300 minutes weekly or 75 to 150 minutes of vigorous-intensity aerobic or a combination of moderate- and vigorous-intensity aerobic activity. Physical activity is best spread throughout the week. If this amount of exercise is not possible, some activity is better than no activity.
- More physical activity should bring more significant benefits.
- Muscle strengthening and balance training activities, such as arm raises, leg raises, walking heel-to toe, etc.
- Individuals with chronic illness should understand what, if any, modifications should be made to their exercise program.
- Older adults should understand their level of fitness and adjust their activities accordingly.

- Exercise should include endurance and balance activities, flexibility, and stretching.

Box 2: Types of Exercise:

- Endurance activities are often referred to as aerobic exercises. They increase respiratory and heart rates. Examples include brisk walking or jogging, yard work, dancing, swimming, biking, and playing aerobic sports. The goal is to build up to at least 150 minutes of activity a week in this category.
- Strengthening activities are often known as weight training exercises or weightlifting. Older adults are encouraged to begin with light weights at first, then gradually add more while exercising all major muscle groups at least two days per week, but not exercise the same muscle group on any two days in a row. Example strengthening activities include lifting weights, carrying groceries, arm curls, wall push-ups, lifting personal body weight, and using resistance bands.
- Balance activities are encouraged to help prevent falls, a common problem in older adults that can have serious consequences. Many lower-body strength exercises also will improve balance. Balance activities may include Tai Chi, standing on one foot, the heel-to-toe walk, the balance walk, and standing from a seated position.
- Flexibility activities, such as stretching can improve the patient's mobility such as the ability to reach down to tie shoes or look over their shoulder when backing the car out of the driveway. Flexibility exercises include stretching the back, inner thigh, ankles, and back of the leg.

(National Institute on Aging, 2021).

Self-Assessment Quiz Question #6

The nurse is educating the older adult about the benefits of regular physical activity. Which statement below is correct the benefit of strength training?

- Strength training can improve balance.
- Strength training can increase the risk of falls.
- Strength training can improve flexibility.
- Strength training can reduce the incidence of acute illness.

Healthcare Considerations: What is the difference between moderate- and vigorous-intensity physical activity?

A person doing moderate-intensity aerobic activity can talk, but not sing, during the activity. A person doing vigorous-intensity activity can't say more than a few words without pausing for a breath. The intensity of an activity can vary based on a person's fitness level. For a person with an average fitness level (HHS, 2018):

- Moderate-intensity activities include brisk walking, dancing, and household chores.
- Vigorous-intensity activities include running, swimming laps, and hiking.

OPTIONS FOR OLDER ADULTS IF THEIR INDIVIDUAL REHABILITATION GOALS ARE NOT MET

Despite the goals of rehabilitation for all members of the team for the patient to return home, this goal is not always met. In a systematic review by Everink et al. (2016), the authors identified older age, marital status, depression, lower cognitive functioning, and low functional status as factors related to a patient's inability to discharge from inpatient rehabilitation back to home. Similarly, Hakkarainen et al. (2016) found that 40% of older adults admitted to skilled nursing facilities were not able to discharge home. Factors associated with increased mortality and failure to return home were increasing age, male sex, increasing comorbidities, decreased cognitive function, decreased functional status, parenteral nutrition, and pressure ulcers (Hakkarainen, et al. 2016). The average age of those

Box 3: Signs of Exercise Intolerance

Prior to implementing exercises:

- Assess the physical activity level and mobility of the patient.
- Take the resting pulse, blood pressure, and respirations. Consider the rate, rhythm, and quality of the pulse. If the signs are normal, have the patient perform the activity.

Immediately after exercising:

- Obtain the vital signs
- Have the patient rest for three minutes and then take the vital signs again.

Stop physical activity if the patient has:

- Chest pain, vertigo, and/or dizziness
- Decreased pulse rate, systemic blood pressure, respiratory response.

Reduce the duration and intensity of the activity if:

- Pulse takes longer than three to four minutes to return to within six-seven beats of the resting pulse.
- Respiratory rate increase is excessive after the activity.

(Gulanick et al., 2021).

When discussing an exercise program with an older adult, several factors should be considered. Many medications can affect an individual's exercise capacity. A medication review should be completed for individuals with chronic illnesses necessitating medications. Older adults living alone or those living in poverty may have problems with food insecurity that affect their nutritional status, and this should be addressed (Coleman-Jensen et al., 2020). Poor nutrition will affect any individual's ability to exercise. As an individual ages, the body's ability to perceive thirst diminishes, increasing the probability of dehydration (Taylor & Jones, 2022). Older adults should be counseled to maintain hydration and should be given tips on how to do this.

Evidence-based practice guidelines:

Hydration in Older Adults

All older persons should be considered to be at risk of dehydration related to low intake of oral fluids, and they should be encouraged to consume adequate amounts of fluids. Strategies to support adequate fluid intake should be developed by the interdisciplinary team, guided by the older adult's preferences for appropriate types of beverages.

Older women should be offered at least 1.6 liters of oral fluids each day, while older men should be offered at least two liters of oral fluids per day unless there is a clinical condition that requires a different approach. (Volkert et al., 2019)

residing long-term in skilled nursing was over 79 years, while that of those moving to assisted living was over 82 years.

For those older adults unable to return home after discharge from rehabilitation in the acute inpatient, postacute rehabilitation, or skilled nursing facility, available options include living with friends or family members; moving to assisted living, memory care, or residential care facilities; or residing in the nursing home and receiving custodial care on a long-term basis. With few exceptions, these options are funded by the patient or family privately. The Veterans Administration does offer some funding, and limited funding is available under the Medicaid benefit depending on the individual's states of residence.

Self-Assessment Quiz Question #7

Mrs. Jimenez is a 76-year-old female was admitted to the hospital with a hip fracture, which was repaired surgically. She lives at home with her husband. She has a history of diabetes, osteoporosis, and was newly diagnosed with dementia. She is compliant with the diabetic diet, and has a BMI of 26, and has maintained the same weight for the last five years. Which of these factors would increase the risk of failure to return home after rehabilitation?

- Marital status.
- Female gender.
- Dementia diagnosis.
- Nutritional status.

Case study and reflection questions

Mrs. Gerhard is a 76-year-old with a history of mild cognitive impairment, diabetes mellitus with neuropathy, hyperlipidemia, and severe osteoarthritis. She lives independently in the community with support from her daughter and grandchildren, who live next door. She does the cooking for the family, and her daughter and grandchildren help with the most instrumental activities of daily living.

She was admitted to the acute care hospital after a fall and was found to have a urinary tract infection. She has multiple contusions but no fracture, has been treated with intravenous antibiotics, has an indwelling catheter, and has been asked not to get up without assistance because she is a fall risk. Her blood sugars were uncontrolled, and she required sliding-scale insulin. Her blood pressure was elevated, and additional medication was added to her daily medication regimen.

The acute care nurse practitioner ordered physical therapy for her, and the therapist visited her every morning. The client was no longer able to walk independently but was using a walker with standby assistance. She responded well to antibiotics, her blood sugars stabilized, her indwelling catheter was removed on day three, and though she still had some urinary incontinence she was able to wear an adult brief and continues to slowly improve. The social worker called Mrs. Gerhard's daughter to discuss a discharge plan. The daughter reported she works full time and her children are in high school and have after-school jobs.

Case Study Questions

Information the social worker needs to obtain to begin discharge planning:

- Who are the interdisciplinary team members that may be part of Mrs. Gerhard's team?
- What does the team believe is the best care setting for the patient's current rehabilitation needs?
- Where do the patient and her family want the patient to go after hospital discharge?
- Does the patient have additional funding sources to help pay for rehabilitation?

Conclusion

As the population in the U.S. continues to age, the need for rehabilitation services in all settings of care will increase. Understanding what rehabilitation is, who administers the care, and how and where it is delivered and paid for is helpful

References

- Agency for Healthcare Research and Quality. (2022). *TeamSTEPPS 2.0*. <https://www.ahrq.gov/teamstepps/instructor/index.html>
- American Nurses Association. (1988). *Rehabilitation nursing: Scope of practice: Process and outcome criteria for selected diagnoses*.
- Baldwin, D. W. (1996). Some historical notes on interdisciplinary and interprofessional education and practice in health care in the USA. *Journal of Interprofessional Care*, 10(2), 173-187. <https://doi.org/10.3109/13561829609034100>
- Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. *Public Health Reports*, 100(2), 126-131.
- Centers for Disease Control and Prevention (CDC). (2021). *Important facts about falls*. <https://www.cdc.gov/falls/facts.html>
- Centers for Medicare and Medicaid Services (CMS). (2021). *Inpatient rehabilitation facilities*. <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/CertificationandCompliance/InpatientRehab>
- Centers for Medicare and Medicaid Services (CMS). (2022). *Medicare benefit policy manual*. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c15.pdf>
- Chang, Y. Y., Peng, L. N., Lin, M. H., Lai, H. J. Y., Chen, L. K., Hwang, S. J., & Lan, C. F. (2011). Who determines the rehabilitation needs of care home residents? An observational study. *Archives of Gerontology and Geriatrics*, 52, 138-141. <https://doi.org/10.1016/j.archger.2010.03.002>
- Coleman-Jensen, A., Rabbitt, M. P., Gregory, C. A., & Singh, A. (2020). Household food security in the United States in 2019. *Economic Research Report Number 275*. U.S. Department of Agriculture. <https://www.ers.usda.gov/publications/pub-details/?pubid=99281>
- Colón-Emeric, C. S., Whitson, H. E., Pavon, J., Hoenig, H. (2013). Functional Decline in Older Adults. *American Academy of Family Physicians*, 88(6), 388-394.

Case Study Answers

- The team would need to consist of at least the patient, family support system, social worker, physical therapist, nurses, and physician(s).
- The social worker will need to work with the physical therapist, nurses, and physician(s) to understand the patient's current level of function, as well as what they believe her potential for rehabilitation and returning to independence in activities of daily living is. The social worker will need to know the number of hours and level of therapy the client is expected to be able to achieve.
- The social worker will also need to understand what the patient, family, and caregivers wish for discharge planning. Is there a desire by the patient, family, and caregivers to return home, if possible? Given the family's activities, how independent must the patient be to come home safely? If the team believes the patient has good rehabilitation potential and can tolerate three hours of therapies daily, the patient may qualify for inpatient rehabilitation. If the team believes the patient cannot tolerate inpatient rehabilitation, skilled nursing with less intense therapy may be the best option. If the patient insists on going home, home healthcare is an option, though the patient may need additional support if the family is away during the daytime and it is not currently safe for the client to be alone.
- Medicare and Medicare Advantage Programs will pay for most of the costs for at least the first several days.

When the patient is ready to return home, the team will need to assess the following questions.

- Can the family adequately care for the patient?
- A home safety evaluation will be helpful in evaluating the physical structure of the home, entry and exit from the home, doorways to accommodate assistive devices, home fall risk, and bathroom safety.
- Will the family be able to transport the patient to medical appointments as needed?
- Will the patient need any adaptive or durable medical equipment?

for nurses. The role of healthcare providers in caring for older adults will continue to expand. Nurses are in an ideal position to educate and encourage older adults to live active and independent lives for as long as possible.

- Covinsky, K. E., Pierluissi, E., & Johnston, C. B. (2011). Hospitalization-associated disability: "She was probably able to ambulate, but I'm not sure." *Journal of the American Medical Association*, 306(16), 1782-1793. <https://doi.org/10.1001/jama.2011.1556>
- Everink, I. H., van Haastregt, J. C., van Hoof, S. J., Schols, J. M., & Kempen, G. I. (2016). Factors influencing home discharge after inpatient rehabilitation of older adults: A systematic review. *BMC Geriatrics*, 16(5). <https://doi.org/10.1186/s12877-016-0187-4>
- Forrest, G., Reppel, A., Kodosi, M., & Smith, J. (2019). Inpatient rehabilitation facilities: The 3-hour rule. *Medicine*, 98(37), e17096. <https://doi.org/10.1097/md.00000000000017096>
- Gell, N. M., Mroz, T. M., & Patel, K. V. (2017). Rehabilitation services use and patient-reported outcomes among older adults in the United States. *Archives of Physical Medicine and Rehabilitation*, 98(11), 2221-2227. E3. <https://doi.org/10.1016/j.apmr.2017.02.027>
- Gulanick, M., Gulanick, M., Myers, J. L., & Myers, J. L. (2021). Nursing care plans: Diagnoses, interventions, and outcomes (10th ed.). Elsevier.
- Hakkarainen, T., Arbabi, S., Willis, M. M., Davidson, G. H., & Flum, D. R. (2016). Outcomes of patients discharged to skilled nursing facilities after acute care hospitalization. *Annals of Surgery*, 263(2), 280-285. <https://doi.org/10.1097/SLA.0000000000001367>
- Halter, J. B., Ouslander, J. G., Studenski, S., High, K. P., Athanas, S., Supiano, M. A., Ritchie, C. S., & Schmadler, K. (2022). Hazzard's geriatric medicine and gerontology (8th ed.). McGraw Hill Professional.
- Institute of Medicine, US Committee on Quality of Health Care in America. (2002). Crossing the quality chasm: A new health system for the 21st century. *Journal For Healthcare Quality*, 24(5), 52. <https://doi.org/10.1111/j.1945-1474.2002.tb00463.x>
- Izquierdo, M., Merchant, R. A., Morley, J. E., Anker, S. D., Aprahamian, I., Arai, H., Aubertin-Leheudre, M., Bernabei, R., Cadore, E. L., Cesari, M., Chen, L., De Souto Barreto, P., Duque, G., Ferrucci, L., Fielding, R. A., Garcia-Hermoso, A., Gutiérrez-Robledo, L. M., Harridge, S. D., Kirk, B., ... Singh, M. F. (2021). International exercise recommendations in older adults (ICFSR): Expert consensus guidelines. *The Journal of Nutrition, Health & Aging*, 25(7), 824-853. <https://doi.org/10.1007/s12603-021-1665-8>
- Lloyd, C., Markland, A. D., Zhang, Y., Fowler, M., Harper, S., Wright, N. C., Carter, C. S., Buford, T. W., Smith, C. H., Kennedy, R., & Brown, C. J. (2020). Prevalence of hospital-associated disability in older adults: A meta-analysis. *Journal of the American Medical Directors Association*, 21, 455-461. <https://doi.org/10.1016/j.jamda.2019.09.015>
- Mauk, K. L. (2012). *Rehabilitation nursing. A contemporary approach to practice*. Jones & Bartlett Learning.
- Moffat, M. (2003). The history of physical therapy in the United States. *Journal of Physical Therapy Education*, 17(3), 15-25. <https://doi.org/10.1097/0001416-200310000-00003>
- Mora, J. C., & Valencia, W. M. (2018) Exercise and older adults. *Clinics in Geriatric Medicine*, 4, 145-162. <https://doi.org/10.1016/j.cger.2017.08.007>
- National Institute on Aging. (2021). Four types of exercise can improve your health and physical ability. <https://www.nia.nih.gov/health/four-types-exercise-can-improve-your-health-and-physical-ability#strength>
- Negrini, S., Selb, M., Kiekens, C., Todhunter-Brown, A., Arienti, C., Stucki, G., Meyer, T., & 3rd Cochran Rehabilitation Methodology Meeting Participants. (2022). Rehabilitation definition for research purposes. *American Journal of Physical Medicine & Rehabilitation*, 107(7) e100-106. <https://doi.org/10.1097/PHM.0000000000002031>
- Nguyen, V. (2020). *TeamSTEPPS Interventions to improve communication and teamwork* [Poster session]. Annual Conference for Rehabilitation Nurses, Virtual. <https://rehabnurse.org/conference/reach-2020/meeting-overview>
- PhysioMedia.com. (n.d.). *Rehabilitation team members*. https://www.physio-media.com/Rehabilitation_Team_Members
- Sandel, E. (2019). The early history of physical medicine and rehabilitation in the United States. *American Academy of Physical Medicine & Rehabilitation*. <https://now.aapmr.org/the-history-of-the-specialty-of-physical-medicine-and-rehabilitation/>
- Spasser, M. A., Greenblatt, R. B., Weismantel, A., & Michigan State University Libraries. (2006). Mapping the literature of rehabilitation nursing. *Journal of the Medical Librarians Association*, 94(2), E-137-142.
- Stucki, G., Cieza, A., & Melvin, J. (2007). The international classification of functioning, disability and health (ICF): A unifying model for the conceptual description of the rehabilitation strategy. *Journal of Rehabilitation Medicine*, 39(4), 279-285. <https://doi.org/10.2340/16501977-0041>
- Taylor, K., & Jones, E. B. (2022). *Adult dehydration*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK555956/>
- U.S. Department of Health and Human Services (HHS). (2018). *Physical activity guidelines for Americans* (2nd ed.) https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf
- Volkert, D., Beck, A. M., Cederholm, T., Cruz-Jentoft, A., Goisser, S., Hooper, L., Kiesswetter, E., Maggio, M., Raynaud-Simon, A., Sieber, C. C., Sobotka, L., Van Asselt, D., Wirth, R., & Bischoff, S. C. (2019). ESPEN guideline on clinical nutrition and hydration in geriatrics. *Clinical Nutrition*, 38(1), 10-47. <https://doi.org/10.1016/j.clnu.2018.05.024>
- Watson, K. B., Carlson, S. A., Gunn, J. P., Galuska, D. A., O'Connor, A., Greenlund, K. J., & Fulton, J. E. (2016). Physical inactivity among adults aged 50 years and older: United States, 2014. *Morbidity and Mortality Weekly Report*, 65(36), 954-958. <https://doi.org/10.15585/mmwr.mm6536a3>

REHABILITATION OF THE OLDER ADULT

Self-Assessment Answers and Rationales

1. The correct answer is B.

Rationale: The focus of rehabilitation is on enabling the person to move from total dependence to a level of independence.

2. The correct answer is C.

Rationale: Rehabilitation refers to a process that assists patients to obtain optimal functioning and should be started immediately when a health problem exists to prevent complications and facilitate recuperation. All resources that can be beneficial to client rehabilitation, including the primary healthcare provider and acute care facilities, should be used. Rehabilitation is a commonality in all areas of nursing practice. Rehabilitation is necessary to help patients return to a previous or optimal level of functioning.

3. The correct answer is A.

Rationale: Medicare Part A covers inpatient care in a rehabilitation facility as long as the doctor deems it medically necessary. Part B covers a wide variety of medically necessary outpatient services. Medicare Part C offers coverage for parts A and B, plus additional items and services. Some of these include prescription drugs, dental, vision, and many others. Medicare Part D offers prescription drug coverage.

4. The correct answer is D.

Rationale: The conditions which qualify for inpatient rehabilitation are stroke, spinal cord injury, congenital deformity, amputation, multiple major traumas, fractured hip, hip or knee replacement, brain injury, burns, active polyarthritis, systemic vasculitis with joint involvement, specified neurologic conditions, or severe or advanced osteoarthritis. Patients who have a diagnosis of diabetes without the conditions listed above may receive rehabilitation on an outpatient basis.

5. The correct answer is C.

Rationale: Speech and language therapists assess and treat patients with a swallowing disorder; they also assess and treat patients with speech and communication problems. Occupational therapists assist patients with their activities of daily living and provide patients with assistive devices to help with eating and dressing. Physical therapists perform rehabilitation and restorative care, such as walking and balance/gait exercises. Case managers coordinate care and they manage insurance reimbursements.

6. The correct answer is A.

Rationale: Regular physical activity can help or prevent many chronic health problems associated with aging, including hypertension, obesity, diabetes, and depression. Strength training can improve balance and reduce the risk of falls, strengthen bones, and reduce blood glucose levels.

7. The correct answer is C.

Rationale: Clients diagnosed with dementia may be at risk for failure to return home because of a reduced cognitive functioning level.

NOTES

NOTES

NOTES

NOTES

How to complete continuing education

Please read these instructions before proceeding.

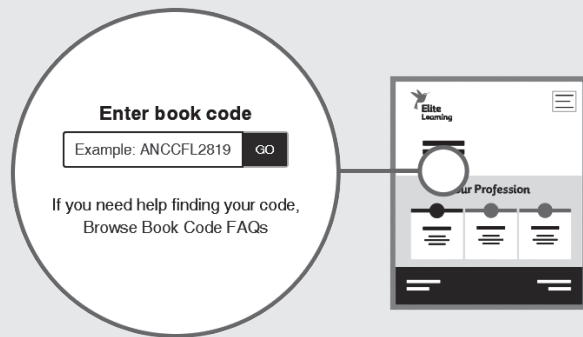
Read and study the enclosed courses and complete the self-assessment exercises. To receive credit for your courses, you must provide your customer information and complete the mandatory evaluation. We offer three ways for you to complete. Choose an option below to receive credit and your certificates of completion.

Fastest way to receive your certificate of completion



Online

- Go to **EliteLearning.com/Book**. Use the book code **ANCKY1423** and enter it in the example box then click **GO**.
- If you already have an account created, sign in to your account with your username and password. If you do not have an account already created, you will need to create one now.
- Follow the online instructions to complete your affirmation. Complete the purchase process to receive course credit and your certificate of completion. Please remember to complete the online survey.



By mail

- Fill out the course participant sheet and evaluation found in the back of this booklet. Please include a check or credit card information and e-mail address. Mail to **Elite, PO Box 37, Ormond Beach, FL 32175**.
- Completions will be processed within 2 business days from the date it is received and certificates will be e-mailed to the address provided.
- Submissions without a valid e-mail will be mailed to the address provided.



By fax

- Fill out the course participant sheet and evaluation found in the back of this booklet. Please include credit card information and e-mail address. Fax to **(386) 673-3563**.
- All completions will be processed within 2 business days of receipt and certificates e-mailed to the address provided.
- Submissions without a valid e-mail will be mailed to the address provided.

NURSING - COURSE EVALUATION (ANCKKY1423 - 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 you 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

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.	<input type="radio"/> 7. The course demonstrated the author's knowledge of the subject.
2. The course content was unbiased and balanced.	<input type="radio"/> 8. I intend to apply the knowledge from this course to my practice.
3. The course was relevant to my practice.	<input type="radio"/> 9. What I have learned from this course will have an impact on my knowledge.
4. I would recommend this course to my peers.	<input type="radio"/> 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.	<input type="radio"/> 11. The overall rating for this course.
6. The course was well-organized and clear.	

Basic Psychiatric Concepts 6 Contact Hours						Management of Anxiety and Depression for Healthcare Professionals 3 Contact Hours					
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Excellent	Good	Average	Below Average	Poor		Excellent	Good	Average	Below Average	Poor
11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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

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

0=Not likely at all, 5=Neutral and 10=Extremely likely

☐ 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 Colibri Healthcare, LLC 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 (ANCCKY1423 - 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 you 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

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.	

Recognizing the Warning Signs of Pediatric Headaches 3 Contact Hours				Rehabilitation of the Older Adult 2 Contact Hours			
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		Strongly Disagree
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
	Excellent	Good	Average	Below Average	Poor		
11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
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

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

0=Not likely at all, 5=Neutral and 10=Extremely likely

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 Colibri Healthcare, LLC to use my comments. If you agree, please provide your name and title as you would like to see them to appear. _____