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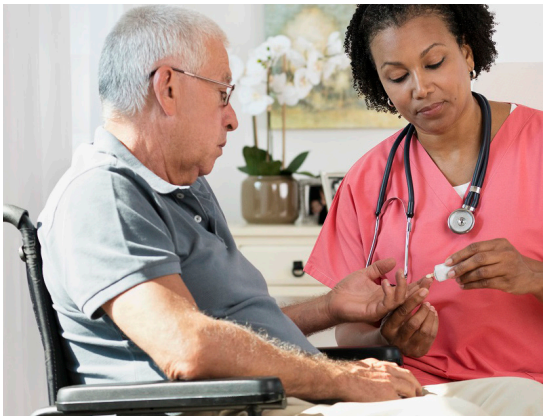

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WHAT'S INSIDE

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FREQUENTLY ASKED QUESTIONS

What are the requirements for license renewal?

Licenses Expire	Contact Hours	Mandatory Subjects
Licenses expire May 31 every two years.	30 (All hours are allowed through home-study)	1 hour concerning prescription opioid drugs, including alternatives to opioids for managing and treating pain and the risks and signs of abuse, addiction, and diversion.

How much will it cost?

Course Title	Contact Hours	Price
Pain Management and Opioid Use for New Jersey Nurses (Mandatory)	1	$11.95
Common Outdoor-Related Issues	6	$33.95
Cultural Humility for Healthcare Professionals	3	$22.95
Emerging Infectious Diseases	6	$33.95
Fundamentals of Mentorship	3	$22.95
Hospice and Palliative Care for Healthcare Professionals	5	$27.95
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Management of PTSD for Healthcare Professionals	1	$11.95
Best Value - Save $163.65 - All 30 Hours	30	$29.95

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Licensing board contact information:
New Jersey Board of Nursing | Division of Consumer Affairs
124 Halsey Street | Newark, NJ 07102 | Phone (973) 504-6430
Website: https://www.njconsumeraffairs.gov/nur

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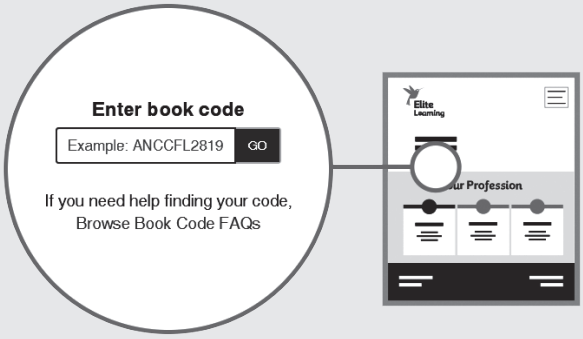

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Pain Management and Opioid Use for New Jersey Nurses (Mandatory)

1 Contact Hour

Release Date: March 12, 2021

Expiration Date: March 12, 2024

Faculty

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

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

Reviewer:
Shellie Hill, DNP, FNP-BC, currently serves as full- time faculty as the FNP program coordinator and assistant professor in the MSN-NP program at Saint Louis University. She has been a practicing family nurse practitioner for 20 years and an RN for 27 years. Most of her clinical practice has been in primary care. She also has experience in urgent care and cardiology. Clinically, she works in corporate healthcare clinics part time and volunteers as an FNP in a clinic that manages underserved patients.

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

Course overview

Nurses have a responsibility to understand the appropriate use of opioid medications, to include the risks inherent to this category of therapeutic products. Further, to fulfill requirements for biennial license renewal, all New Jersey registered professional nurses and licensed practical nurses must complete a one-contact-hour continuing education program focused on the use of prescription opioid drugs and potential alternative medications useful for the treatment and management of pain. Further to this, this coursework must cover the risks and signs of opioid misuse, addiction, and diversion (New Jersey Division of Consumer Affairs, 2020).

It is critical that all nurses have an understanding of pain management and the potential risks and benefits of using opioid pain medication for its treatment. This course is intended to provide nurses engaged in practice settings that prescribe opioids with an accredited continuing education course designed to satisfy specific state of New Jersey continuing education requirements and provide an overview of the clinical use of opioids.

Learning objectives

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

- State the required frequency of controlled substance inventories.
- Provide an overview of controlled substance recordkeeping.
- Explain the concept of a controlled substance closed system.
- Identify two traits sometimes associated with drug diversion by a healthcare professional.
- Provide an example of an action required by an institution following the identification of employee diversion.
- Suggest one potential benefit that may arise from the identification of institutional diversion.
- Describe a negative consequence associated with the improper disposal of controlled substances.
- Note one key step in the treatment of addiction.
- Name a medication useful in the treatment of opioid overdose.

How to receive credit

- Read the entire course online or in print which requires a 1-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal information and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion.

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Individual state nursing approvals

In addition to states that accept ANCC, Elite is an approved provider of continuing education in nursing by: Alabama, Provider #ABNP1418 (valid through February 5, 2025); 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 #15020) valid through December 31, 2021; District of Columbia Board of Nursing, Provider # 50-4007; Florida Board of Nursing, Provider #50-4007; Georgia Board of Nursing, Provider #50-4007; and Kentucky Board of Nursing, Provider #7-0076 (valid through December 31, 2023). This CE program satisfies the Massachusetts Board's regulatory requirements as defined in 244 CMR 5.00: 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, Elite implemented mechanisms prior to the planning and implementation of the continuing education activity, to identify and resolve conflicts of interest for all individuals in a position to control content of the course activity.

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Course verification

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

INTRODUCTION

According to data published by the Centers for Disease Control and Prevention (CDC), most American adults experience some degree of pain. This data suggested that the incidence of pain is greater in military veterans than in civilians, with the prevalence of pain increasing with age in both populations (CDC, 2019).

Pain is defined as an "unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage." Although people often think of pain as a physical sensation, it goes beyond this and is influenced by beliefs, attitudes, social factors, and personality. As such, this complex phenomenon can impact both emotional and mental health. Pain is also subjective: two people suffering the same insult may have vastly different experiences (Painaustralia, n.d.).

There are three key types of pain:

1. Acute pain is usually brief following trauma, surgery, or some other sort of physical insult. Acute pain serves as a warning to the body, signaling the need to seek assistance. In most cases acute pain self-resolves.
2. Chronic pain lasts beyond expected healing times. In some cases, chronic pain may present without a clear reason or be a symptom of some other pathology. In yet other instances, chronic pain may be itself a disease resulting from changes within the central nervous system (CNS).
3. Cancer pain occurs at various stages of disease. In some cases of cancer survivors, it can present as a severe and debilitating adverse event related to treatment (Painaustralia, n.d.).

Prevalence

According to CDC, it is estimated that 31.5% of military veterans and 20.1% of civilian adults have experienced pain most or every day in the preceding 3 months (CDC, 2019).

Understanding pain

Pain can be considered physiologic or pathologic. Physiologic pain describes nociception of noxious stimuli associated with tissue injury. The role of this sensation is to detect the threat as pain, helping to formulate a reaction to avoid it. Physiologic pain can be thought of as an alarm system (Chan et al., 2018). At the point where pain is no longer useful as an acute warning system, yet persists, it evolves from its protective function to that of pathological chronic pain. In these cases, sensory neurons become unusually excitable and may harbor spontaneous pathological activity (Cheng, 2018).

Consequences of pain

Individuals who ignore pain may invite serious repercussions, ranging from a burnt finger to a permanently damaged joint. Research available in the scientific literature suggests that the potential consequences of pain that is not properly treated may be more relevant than generally acknowledged (Chriss, 2017).

In broad strokes: Older patients with chronic pain suffer increased rates of memory decline and are more apt to develop dementia. Osteoarthritis and accompanying joint pain correlate with memory loss. Pain of a severity adequate to interfere with daily life is associated with increased mortality rates. Individuals who reported being "often troubled with pain" had a 29% increased risk of dying, whereas those with "quite a

bit" or "extreme" pain realized 38% and 88% increased mortality risk, respectively (Chriss, 2017).

The negative impacts of chronic pain are manifold with various publications reporting several consequential detriments to patient health, such as impacts on sleep, cognition, mood, cardiovascular health, sexuality, and overall quality of life (Chriss, 2017).

Nonetheless, this knowledge does not always translate to effective management of pain. Undertreatment is common in some cases, and fears radiating from the current opioid epidemic are making things worse by frightening prescribers from properly using opioid medications. As a result of this fear and possible misinformation, effective pain treatment requires specialized knowledge and expert care. When accomplished effectively, good pain management can lead to improved outcomes and enhanced quality of life (Chriss, 2017).

The high incidence of pain requires that nurses be informed of the latest and best approaches to pain assessment, treatment, and management. In some cases, opioid-based medications may be indicated.

Self-Assessment Quiz Question #1

Which of the following statements about pain is *true*?

a. Chronic pain can always be linked to a traumatic event.
b. Physiologic pain can serve as a warning system to the body.
c. A connection between pain has not been made between either morbidity or mortality.
d. Pain is generally associated with an increased sense of alertness and enhanced cognition.

RISKS ASSOCIATED WITH OPIOID MEDICATIONS

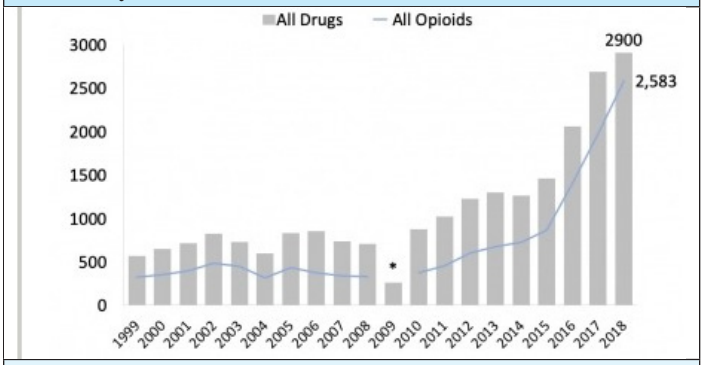
According to the National Institute of Drug Abuse (NIDA), in 2018 an average of 128 people died every day from overdosing of opioids. From this it is clear that the misuse and addiction to opioids, which includes prescription medications, is a serious national health crisis impacting public health and social and economic welfare. It is estimated that when the costs of related healthcare, lost productivity, treatment of addiction, and criminal justice intervention are tallied, the cost of this misuse is approximately $79 billion per year (NIDA, 2020b).

Opioid prescribing in New Jersey

In 2018, New Jersey providers issued 38.9 opioid prescriptions per 100 persons; the average US rate was 51.4. This was the lowest prescribing rate since such data became available in 2006 (NIDA, 2020a). Even though New Jersey providers are writing fewer opioid prescriptions than other prescribers in the United States, the state has determined that nurses would benefit from targeted education characterizing opioid misuse, pain assessment, alternatives, and signs of opioid addiction and diversion (New Jersey Division of Consumer Affairs, 2020).

In New Jersey in 2018, there were 2,583 opioid-related overdose deaths: a rate of 30 deaths per 100,000 persons compared with the national rate of 15 deaths per 100,000. During 2018, the total number of drug-related deaths in New Jersey was 2,900. As depicted in Figure 1, it is evident that the rates of both overdose and opioid overdose leading to death in New Jersey are rapidly accelerating (NIDA, 2020a).

Fig. 1: Number of Drug and Opioid-involved Overdose Deaths in New Jersey



Source: NIDA, 2020a

To view a real-time and up-to-date source reporting the number of opioid prescriptions written in the state and New Jersey overdose deaths, view the county specific website maintained by NJCARES, https://www.njcares.gov/index.html

Self-Assessment Quiz Question #2

Regarding the use and misuse of opioids in New Jersey, which of the following statements is *false*?

a. The issuance of prescriptions for opioid medications in the state is less than the national average.
b. As of 2018, the frequency of prescriptions issued for opioids in the state is increasing year after year.
c. Statewide deaths caused by opioids are greater than the national average.
d. The number of opioid-involved overdoses in the state is relatively constant year to year.

REGULATIONS GOVERNING THE USE OF OPIOIDS

The Controlled Substances Act

The Controlled Substances Act (CSA), signed into law in 1970, is the fundamental statutory framework for the manufacture, distribution, prescription, and use of controlled substances in the United States. The CSA addresses problems associated with controlled substances that have no recognized medical use as well as those with currently accepted medical applications. Because controlled drugs are important resources for the clinician, the CSA attempts to balance two competing needs: to maintain an adequate and uninterrupted supply of controlled substances for legitimate purposes while simultaneously reducing their diversion and abuse (Anderson, 2020).

Schedules of Controlled Substances

The drugs and other substances that are considered controlled substances under the CSA are divided into five schedules. A controlled substance is placed in its respective schedule based on whether it has a currently accepted medical use in the United States, its relative abuse potential, and its likelihood of causing dependence (United States Drug Enforcement Agency [DEA], n.d.a).

Nursing Consideration: Nurses must be able to differentiate among the various schedules and know what drugs belong to which schedule. This helps to identify potential for abuse as well as to enhance patient/family education.

Inventory Requirements of Controlled Substances

The inventory process for controlled substances is clearly described by DEA:

> A complete and accurate record of all controlled substances on hand on the date of inventory must be maintained at the registered location for at least 2 years (DEA, n.d.a). An inventory must include all controlled substances on hand on the date that the registrant first engaged in the manufacture, distribution, or dispensing of controlled substances. After the initial inventory is completed, all registrants must take a new inventory of all controlled substances on hand at least every 2 years (DEA, n.d.b).

Self-Assessment Quiz Question #3

Regarding the inventorying of controlled substances, which of the following statements is *true*?

a. .All controlled substances must be inventoried at least annually.
b. The inventory of controlled substances, although not mandated, is a good business practice.
c. After an initial inventory, all controlled substances must be inventoried at least every other year.
d. All inventory records must be maintained for at least 10 years.

Recordkeeping

An essential tool in combatting diversion is recordkeeping. The CSA requires that complete and accurate records be kept of all controlled substances manufactured, purchased, and sold. All records related to controlled substances must be maintained and available for inspection for a minimum of 2 years. If properly maintained, records will allow a re-creation of the flow of a controlled substance from its manufacture to its ultimate purchase by a patient (DEA, n.d.a).

Nursing consideration: Nurses must be aware of and adhere to all legal and organizational mandates regarding recordkeeping, recording, and administration of scheduled substances.

Self-Assessment Quiz Question #4

DEA requires extensive recordkeeping for all activities associated with controlled substances. Which of the following statements characterizing controlled substance recordkeeping is *false*?

a. The CSA requires records only of the purchase of controlled substances.
b. Most controlled substance records must be maintained for at least 2 years.
c. In theory, properly maintained records should allow a re-creation of the flow of a controlled substance from its manufacture to its ultimate purchase by a patient.
d. Proper recordkeeping is a potent tool for combatting the diversion of controlled substances.

New Jersey controlled substance regulation

Title 13, Chapter 45H of the New Jersey Administrative Code provides additional laws governing the use of controlled, dangerous substances (New Jersey Division of Consumer Affairs, 2019). Examining the legal treatment of each component of the controlled substance acts at the New Jersey State versus the federal level is beyond the scope of this course. Title 13, Chapter 45H, which details the regulation of controlled substances, can be accessed at https://www.njconsumeraffairs.gov/regulations/Chapter-45H-Controlled-Dangerous-Substances.pdf

Nevertheless, it is critical to note that in most all cases, when there are differences between federal and state regulations, the most stringent interpretation of the law must be followed (Gershman, 2017).

Nursing Consideration: Nurses need to stay up-to-date regarding legislation that impacts the administration of controlled substances. This is important because their ability to practice within legal parameters depends, in part, on their knowledge.

PROPER USE OF OPIOID MEDICATIONS

Clinicians often find themselves in a quandary. Although many practitioners have patients suffering excruciating pain, there is a generalized fear of using potent opioid medications. The basis for this distress is reinforced regularly with accelerating cases of drug overdoses, many times leading to death. At the same time, federal and state governments tightly regulate the use of these medications, perhaps contributing to clinician anxiety. Even though opioid medications often will be needed to treat certain conditions, available information suggests that the best results may be obtained when opioids are combined with nonopioid medications, physical therapy, or other treatment modalities especially tailored to the individual's needs (Chriss, 2017).

Opioid treatment guidelines

Despite alternatives, opioid medication usage is inevitable in many cases. In an effort to balance the risk of these potent and sometimes dangerous products against their potential efficacy, Dowell and colleagues (2016) published a 12-point document from CDC designed to guide the use of opioid medications. It is critical to note that in this seminal publication, the authors stated that nonopioid therapy is the preferred approach for chronic pain management and that opioids should be considered only in cases where the anticipated benefits clearly outweigh the risks. If opioids are selected for use, clinicians must prospectively establish treatment goals and decide how opioids will be discontinued in the event that the benefits do not outweigh the risks. In all cases the lowest effective dose should be employed, with dose increases occurring gradually, only after a reassessment of benefits and risks. In patients with a history of misusing medications, clinicians should employ alternative evidence-based treatment approaches whenever possible (Dowell et al., 2016).

Diversion of opioid medications

DEA requires a closed system to be employed by all legitimate parties involved in the management of controlled substances. This mandate dictates that all distributions are made in alignment with the CSA as well as the Secure and Responsible Drug Disposal Act of 2010 (SRDDA). Within such a closed system, recordkeeping is required, documenting each movement of a controlled substance spanning the time from its manufacture to patient or disposal. If at any time a controlled substance should leave this closed system, it is said to have been diverted (Education Development Center [EDC], 2020).

Nurses Recognizing Controlled Substance Diversion

It is critical that nurses are aware of certain patterns and warning signs that may indicate potential problems. Nursing management must take appropriate steps to prevent diversion and rapidly respond to any incidents in a timely manner (Palmer, 2019).

Following are some of the common behaviors and traits that can be associated with diverters (Palmer, 2019):

- Persuasive and bright personality; may be able to readily provide quick explanations for things that appear improper.
- Frequent disappearances from normal workspace, sometimes for prolonged periods.
- Overly helpful, often arriving early and staying beyond scheduled shift.
- Readily volunteers for overtime or comes to work at unscheduled times.

It is critical to note that not every nurse exhibiting some or all these characteristics is a diverter of controlled substances. Knowledge of these traits should be used as one tool to help in the detection of diverters (Palmer, 2019).

Evidence-based practice! Simon (2019) presented a systematic review of the drug diversion literature at the 2019 Grace Person Nursing Research colloquium. He first described drug diversion as a multivictim crime that impacts patients, healthcare workers, and the greater community. Most important, patients may suffer by being denied pain relief or by exposure to blood-borne pathogens introduced through tampering. The objective of this work was to find new protocols to prevent the spread of blood-borne pathogens from drug diversion. Search terms included "drug diversion," "drug diversion policy," "behavior," and "nursing." A total of 17 publications met the inclusion criteria and were included in the analysis. Simon's data showed that drug diversion protocols are largely consistent, relying on automatic dispensing cabinets (ADC) and monitoring medication administration records (MAR) to identify the use of controlled substances. About 35% of the articles reviewed described the use of ADC; 41% discussed the issue of drug diversion behaviors. Only 6% of the publications touched on both ADC and diversion behaviors. Simon concluded that there is a gap in research linking efforts to limit drug diversion with technology and the behavior leading to diversion. Further to that, this research suggested that research trends continue to support this divide (Simon, 2019).

Nursing Consideration: Nurses must be alert to the potential characteristics of other nurses who are abusing controlled substances and should be prepared to intervene to help these individuals address their issues.

Responding to Instances of Nursing Diversion

Each institution involved in the use of controlled substances must have proactive plans in place to immediately manage instances of diversion. As soon as diversion is confirmed, decisions must be made regarding the continued employment of the involved individuals, taking into consideration the nature of the offense with the health and safety of their patients and staff as the key priority (New, 2015).

Although most cases of nurse-involved diversion will avoid criminal prosecution, the diversion of controlled substances is a felony that must be reported to law enforcement, DEA, and professional licensing boards (New, 2015).

Prompt notifications must be made to any patients who may have unknowingly been involved in the act of diversion. If the news media becomes involved, nurses should not comment; rather, they should refer the media to appropriate institutional spokespeople. Organizations may provide information about diversion to subsequent employers, but concerns about litigation may prompt some institutions to avoid this practice. This amplifies the need to make appropriate reports to professional boards and law enforcement. Adverse licensure actions or criminal convictions would then be available to subsequent employers (New, 2015).

Each diversion event must undergo a formal root-cause analysis to identify places for improvement measures. In cases of diversion involving tampering, the risk of transmitting blood-borne pathogens to patients must be assessed. In some cases, it may be appropriate to test the diverter for blood-borne pathogen infection. Each piece of information derived from the analysis of diversion events should be assessed to bolster future efforts to detect and prevent diversions (New, 2015).

Case study: Nurse Sabrina

Sabrina was employed as a registered nurse in the Medical-Surgical Department of Springfield Community Hospital. In the fall of 2019, a routine inventory of the department's controlled substances indicated a significant increase in the use of codeine phosphate tablets. In response to these findings, a more thorough monitoring of all the department's controlled substances was initiated. A thorough examination of the inventory records suggested that on 10 separate occurrences, multiple codeine phosphate tablets were recorded as missing. A quick cross-check of the dates noted and the unit schedule indicated that there was only one staff member with access to the controlled substances present on each of the days of interest. That person was Sabrina. On this basis, it was alleged that Sabrina, on multiple occasions, stole varying amounts of codeine phosphate tablets.

An investigation was launched to confirm or refute these serious allegations. Sabrina denied that she had ever been the subject of any previous investigations and knew nothing about these instances of missing controlled substances. Nonetheless, when confronted with the evidence compiled, Sabrina reluctantly admitted to the charges and that she had been the subject of a previous diversion investigation.

These infractions were then referred to the hospital's disciplinary panel for final disposition. The panel was charged with determining if the facts of the case amounted to misconduct as defined by the institution's code of conduct.

Fortunately, the panel determined that Sabrina's actions did not cause harm to a patient. Nonetheless, Sabrina was found to have breached a fundamental foundation of the nursing profession: always act with honesty and integrity. Further to this, it was noted by the panel that Sabrina had been the subject of a previous investigation into missing drugs despite her statement that she had not. Although no findings had been made against her in the earlier case, the panel concluded that, because the earlier investigation had not deterred her from misappropriating drugs, it was doubtful that the current proceedings would either. As a result, it was determined that some action was required. After careful deliberation, the panel decided to place restrictions on her access to controlled substances and require her to complete a drug abuse treatment program and attend remedial controlled substance training.

Self-Assessment Quiz Question #5

In the case of Sabrina, was the closed system, as required by DEA, violated? If so, how?

a. No.
b. Yes, the controlled substance storage area was not locked properly.
c. Yes, Sabrina failed to properly document her diversion of codeine phosphate.
d. Yes, the closed system mandate dictates that all distributions are made in alignment with the CSA.

Self-Assessment Quiz Question #6

This case of controlled substance diversion was detected through observed decreases in inventory. It is possible that it could have also been identified by careful observation of Sabrina's behavior. What sort of traits are often associated with the diversion of controlled substances?

a. Frequent disappearances from normal workspace, sometimes for prolonged periods.
b. Readily volunteers for overtime or comes to work at unscheduled times.
c. Overly helpful, often arriving early and staying beyond scheduled shift.
d. All of the above.

Self-Assessment Quiz Question #7

From an institutional level, what is one critical step that must be taken immediately after confirmation of diversion such as that committed by Sabrina?

a. All implicated employees must be immediately terminated.
b. The diversion must be immediately reported to law enforcement, DEA, and professional licensing boards.
c. Any involved patients must not be notified to avoid expensive litigation.
d. Sabrina's manager should consider holding a press conference to ensure full disclosure of the incident to the public.

Self-Assessment Quiz Question #8

Although no institution would knowingly seek out or favor the occurrence of controlled substance diversion, what is one potentially positive outcome that could be associated with an instance of diversion?

a. It always helps identify employees with a potential for drug abuse.
b. Apprehension of a diverter can provide realistic training for security personnel.
c. Subsequent root-cause analysis may bolster future efforts to detect and prevent diversions.
d. None of the above.

Discussion

Unfortunately, Nurse Sabrina was diverting controlled substances, possibly for her own illicit use. Fortunately, through careful investigation, her institution was able to identify what she was doing and take appropriate action without harm to any patients or other staff members. The hospital followed through by convening a disciplinary hearing that determined that Sabrina would require special accommodations to continue in her work. This outcome, although possibly punitive in nature, could be considered productive in that it aimed to help her safely continue to practice nursing, though in an environment designed to protect her, her coworkers, and patients.

Proper disposal of controlled substances

Public safety issues may also arise when unused or unexpired prescription medications are not properly disposed of, sometimes potentially resulting in misuse, accidental poisoning, and even death (U.S. Food and Drug Administration [FDA], 2019). Examples of best practices for the proper disposal of prescription drugs are plentiful. One example can be found on a website maintained by FDA, https://www.fda.gov/drugs/ensurin.g-safe-use-medicine/safe-disposal-medicines

The use of opioids in the hospice care setting presents an excellent example of how the safe disposal of unused controlled substances can become complicated. Until recently, hospice workers were not able to destroy patients' unneeded opioid medications in the home. Rather, families were directed to destroy these medications by mixing them with coffee grounds or cat litter and disposing of them in the trash. This was a common issue: approximately 45% of hospice patients receive end-of-life care at home. An investigation suggested that, after the death of patients receiving opioids, some controlled medications were taken by neighbors, relatives, or caregivers, potentially contributing to the opioid overdose epidemic (Baily, 2018).

New legislation allows hospice workers to destroy unneeded opioid medications in an effort to reduce the risk of misuse. This new legislation was endorsed by the National Hospice Care Organization, stating that this new legal authority served two needs: removing the responsibility from grieving families and helping to prevent the improper diversion of opioid medications. Further, the law requires that hospice workers thoroughly document the disposal of opioid medications and properly discuss these policies with the patient's families and loved ones (Baily, 2018).

Evidence-based practice! Patel and colleagues (2020) conducted an investigation to better characterize the use of controlled substances in Ontario, Canada, hospices. To this end, they distributed a survey to all the hospices in Ontario (total of 39). Survey questions were designed to describe the demographics of the hospice population, patterns of care, and disposal and documentation practices. Results indicated that in all practices, 76% to 100% of patients were receiving controlled substances at the time of their death. So far as established practice procedures, 67% had policies in place for managing controlled substances, 17% had both policies and standard operating procedures (SOP) for controlled substance management, and the remaining 17% had neither policies nor SOP. Further analysis of their data showed a variability in procedures for obtaining controlled substances: some brought their own, others relied on other patient's medications, some were supplied by the hospice. Further differences were observed in storage, dispensing, and disposal procedures. Investigators concluded that most hospices have policies or SOP related to the management of controlled substance, but there is considerable variation in the practice of dispensing these medications. Further, they went on to state that these differences may provide a conduit for inappropriate use, abuse, or diversion of controlled substances (Patel et al., 2020).

Self-Assessment Quiz Question #9

Which of the following issues is likely to be associated with the safe disposal of controlled substances in the hospice setting?

a. Opioid pain medications are rarely justified for use in hospice patients.
b. After the death of patients receiving opioids, some controlled medications are diverted to other people.
c. Some hospice workers refuse to take possession of unused controlled substances.
d. None of the above.

Self-Assessment Quiz Question #10

Regarding the new legislation allowing hospice workers to destroy unneeded opioid medications, which of the following is *false*?

a. It is opposed by the National Hospice Care Organization.
b. The law removes the responsibility for disposing of controlled substances from families.
c. It requires the full documentation of controlled substance disposition by hospice workers.
d. Overall, it is designed to help prevent the improper diversion of opioid medications.

Identifying patients at risk of misusing opioid medications

In addition to following appropriate usage guidelines, clinicians must actively identify patients who may be at risk of suffering from a substance use disorder (SUD). This process can be challenging, and such interactions can result in sensitive or even confrontational situations. Such exchanges can be stressful to both the patient and clinician. A critical component of proper patient care is to minimize the emotions and work to avoid escalating the situation. Rather than employing a standardized approach for risk assessment, many prescribers instead rely on their own subjective impressions or so-called red flags (for example, a patient requesting a specific medication or dose) to characterize risk levels for SUD. It is critical to note that there is a wealth of available tools to guide this process, to include useful practice guidelines as well as requirements put in place by oversight agencies. Despite the fact that no single tool has been proven to work in all cases, a standardized approach is likely to be superior to a subjective assessment at identifying patients at risk of SUD (Ducharme & Moore, 2019).

Despite best efforts, there are certain to be instances of opioid misuse leading to addiction, overdose, and sometimes death. It is incumbent on all healthcare professionals involved in the prescribing of these medications to take steps to ensure proper use, identify potential issues, and know how to treat cases of addiction when warranted.

Treatment of addiction

Because addiction is a chronic disease, its treatment is not usually straightforward. Treatment is much more complex than simple abstinence. The majority of patients will require long-term or repeated care to completely stop using opioids and appreciate recovery. At a high level, key steps in the process include cease using drugs; remain drug free; and become productive, to include with the society, at home, and at work (NIDA, 2016).

Opioid overdose reversal with Naloxone (Narcan, Evzio)

Unfortunately, some misuse, addiction, and overdose of opioids is inevitable. Naloxone is a medication designed to rapidly reverse opioid overdose. It is an opioid antagonist –meaning that it binds to opioid receptors and can reverse and block the effects of opioids. It can very quickly restore normal respiration to a person whose breathing has slowed or stopped as a result of overdosing with heroin or prescription opioid pain medications (NIDA, 2018).

Some states are aggressively working to get this easily used medication in the hands of first responders; families; and, in some cases, community teams. In most cases the medication is administered as an injection, but it is also available as a nasal spray. Immediate administration may save the life of an overdose victim.

Conclusion

All nurses who come into contact with controlled substances in their practice have a responsibility to understand the risks inherent to these potentially dangerous medications and how to best manage their usage. When dealing with opioids for the management of pain, nurses must first fully appreciate the pathophysiology, prevalence, and consequences of pain. There are myriad regulations, both federal and state, that must be carefully followed when controlled substances are used. Nurses must familiarize themselves with these laws and ensure that they are consistently applied. To safely use opioids, it is critical to adhere to treatment guidelines and be wary of diversion by both patients and healthcare professionals. One key tool to curbing diversion of controlled substances is to ensure that unused medications are properly disposed of. In addition to common sense, there are a number of guidelines that nurses should follow to ensure that surplus controlled substances do not fall into the hands of anyone other than those properly prescribed to receive them. In spite of best practices to manage the use of opioid medications, nurses must recognize that misuse of these products will occur, sometimes leading to addiction and overdose. Therefore, it is critical that nurses have the proper training to recognize misuse and understand how addiction can be managed. Lastly, because overdose of these potent medications is common, nurses should be aware of how to resuscitate an individual suffering from an opioid overdose.

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PAIN MANAGEMENT AND OPIOID USE FOR NEW JERSEY NURSES

Self-Assessment Answers and Rationales

1. The correct answer is B.
Rationale: Pain can be described as a stimulus associated with injury that contributes to a reaction designed to avoid it. Thus, pain serves as a sort of warning system to prevent further injury.

2. The correct answer is B.
Rationale: The number of prescriptions for opioids in New Jersey in 2018 was at the lowest level since 2006.

3. The correct answer is C.
Rationale: All controlled substances must be inventoried on the first day that the registrant opens for business and every 2 years thereafter.

4. The correct answer is A.
Rationale: The CSA requires that complete and accurate records be kept of all quantities of controlled substances manufactured, purchased, and sold – the entire lifespan of a controlled substance product.

5. The correct answer is D.
Rationale: In addition to requiring documentation of all movements of controlled substances, a closed system requires that all distributions must be made in accordance with the CSA.

6. The correct answer is D.
Rationale: Although the presence of some or all of these characteristics is often associated with diversion, their occurrence is not proof of diversion. Rather, the observation of these traits may suggest diversion and should be included in a holistic assessment of a suspected problem.

7. The correct answer is B.
Rationale: Although not always prosecuted, diversion of controlled substances is a felony, and as such must be reported to all appropriate authorities and licensing boards.

8. The correct answer is C.
Rationale: Each detected diversion must undergo a formal root-cause analysis to identify places for improvement measures. Results from this assessment may provide information useful to preventing further cases of diversion.

9. The correct answer is B.
Rationale: A recently published investigation suggested that after the death of patients receiving opioids, some controlled medications were taken by neighbors, relatives, or caregivers, potentially contributing to the opioid overdose epidemic.

10. The correct answer is A.
Rationale: AIt is expected that this legislation will enhance end-of-life quality of care through the better facilitation of controlled substances and is endorsed by the National Hospice Care Organization.

Course Code: ANCCNJ01OP22

Common Outdoor-Related Issues

6 Contact Hours

Release Date: January 7, 2020

Expiration Date: January 2, 2023

Faculty

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

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

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Activity director

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

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INTRODUCTION

Learning outcome

Every season of the year has its gifts and challenges. A winter snowfall looks beautiful but is accompanied by the risk of frostbite or heart attack while one is shoveling snow. The summer sun is wonderful but associated with an increased risk of skin malignancies. This education program focuses on helping nurses expand their knowledge and improve patient care for those persons dealing with season-related disorders and injuries.

Learning objectives

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

- Describe preventive health initiatives for individuals who exercise outdoors year-round.
- Explain how to survive dangerous conditions that can occur during winter storms.
- Describe the effects of carbon monoxide poisoning.
- Discuss treatment initiatives for frostbite.
- Recognize the clinical effects of hypothermia.
- Explain treatment initiatives for seasonal affective disorder (SAD).
- Paraphrase treatment measures for allergic rhinitis.
- Differentiate among the different types of reactions to insect bites and stings.
- Describe first aid initiatives for animal bites.
- Assess patients for concussion.
- Initiate first aid for lacerations and puncture wounds.
- Explain treatment initiatives for near-drowning victims.
- Differentiate among the categories of heat-related illnesses.
- Identify the characteristics of Lyme disease.
- Describe the clinical effects of common poisonous plants.
- Explain treatment measures for poisonous snakebites.
- Initiate immediate first aid for patients with suspected spinal cord injury.
- Differentiate between sprains and strains.
- Describe the risk factors for sunburn.
- Explain the clinical manifestations of West Nile virus infection.

Course overview

Winter storms, sunburn, exposure to poisonous plants, and lack of daylight are only a few of the problems that occur seasonally. Although most problems can occur throughout the year, some have a higher incidence in a particular season. For example, drowning can occur throughout the year because of indoor swimming pools. However, people generally swim more often during the warmer months, increasing the likelihood of drowning during this time.

This education program is designed to help nurses expand their knowledge and improve patient care when caring for those persons dealing with season-related, outdoor disorders and injuries.

WINTER WEATHER-RELATED HEALTH ISSUES

Some thoughts about exercising outdoors

Many people engage in outdoor exercise throughout the year. Although walking, jogging, running, and biking can be done year-round, some people choose to work out indoors once the winter months arrive. However, exercising outdoors while experiencing nature, referred to as "green exercise," has added benefits all year-round. Research has indicated that green exercise may improve immune system functioning, lower blood pressure after exercise, enhance mood, and improve sleep patterns (Schroeder, 2017).

Check the weather forecast

The human body needs time to acclimate to winter temperatures. If it is too cold, or conditions are unsafe, people should consider exercising indoors (U. S. Department of Health & Human Services [HHS], 2017).

When assessing the safety of the winter environment for exercising, there are several factors to consider. Wind and cold together make up wind chill. Wind can penetrate clothing and remove insulating warm air that surrounds the body. Any exposed skin may develop frostbite. If the temperature falls below 0˚F, or the wind chill is extreme, it would be smart to exercise indoors. Getting wet increases vulnerability to cold. If wet from rain or snow, the body core temperature may not be maintained (HHS, 2017; Mayo Clinic, 2019a).

Know the signs of frostbite and hypothermia

Frostbite is most common on exposed skin such as cheeks, nose, and ears but can also occur on hands and feet. Early symptoms of frostbite include numbness, loss of feeling, or a stinging sensation. If frostbite is suspected, the person should immediately get out of the cold. The affected area should be warmed slowly but never rubbed because this can cause skin damage. If numbness does not go away, or there are signs of infection to the frostbitten area, medical attention should be sought (Mayo Clinic, 2019a).

Hypothermia is abnormally low body temperature. Older adults and young children are at higher risk. Signs and symptoms are intense shivering, slurred speech, loss of coordination, and fatigue (Mayo Clinic, 2019a).

Dress appropriately

Dressing appropriately is critical in any season. In the warmer months, clothing should generally be lightweight and often consists of running shorts and sleeveless tops. In the winter, people frequently make the mistake of assuming that they should dress quite warmly. By wearing heavier winter clothing, they are comfortable at the start of their workout but soon become hot and uncomfortable. This usually makes

people cut their exercise routine short. For individuals who exercise outdoors during colder months, dressing in layers is the answer. Layering allows for quick, easy clothing adjustments while walking, jogging, or running. The first layer of clothing (next to the skin) should be of a thin synthetic fabric that draws sweat away from the body. Cotton should be avoided because it holds moisture next to the skin. The next layer should be of fleece or wool for insulation. The outer layer should be of waterproof, breathable material (HHS, 2017; Mayo Clinic, 2019a).

Wearing a thin pair of glove liners made of material such as polypropylene under a pair of heavier gloves or mittens lined with wool or fleece will help to keep hands warm and protect against frostbite. Gloves or mittens should be worn before hands become cold. This outer layer can be removed (leaving the glove liners) when hands become sweaty. Chemical heat packs can be used to warm hands or feet. The head should be covered with a hat and ear muffs to protect the ears. When exercising during very cold weather, it may be prudent to wear a scarf or ski mask to cover and protect the face (HHS, 2017; Mayo Clinic, 2019a).

Nursing consideration: It may be helpful to buy exercise shoes a half to one size large than usual to allow for the wearing of thermal socks or two pair of regular socks. Exercise shoes should also have adequate traction to help prevent falls, and they should preferably be waterproof (Mayo Clinic, 2019a).

Safety issues

There are a number of safety issues to remember when exercising outdoors. During the winter months, the number of dark hours increases. This means that individuals who exercise outdoors must be sure to wear reflective clothing, including gloves, vests, or ankle cuffs. When cycling, lights or reflectors should be attached to the bicycle. A helmet should be worn when skiing, snowboarding, and snowmobiling (HHS, 2017; Mayo Clinic, 2019a).

Sunscreen

Sometimes people forget that sunscreen is just as important in the winter as it is in the summer. Sunscreen is necessary not only when the sun is shining but also when the day is cloudy and overcast. A sunscreen that blocks both UVA and UVB rays and a lip balm with sunscreen are recommended. Snow and ice glare can also be dangerous. Dark glasses or goggles should help to reduce such glare (HHS, 2017; Mayo Clinic, 2019a).

Hydration

Although individuals who exercise may not sweat as much during the winter as in the summer, fluid loss still occurs with outdoor winter exercise. Failure to stay hydrated decreases speed and exercise performance and can even lead to a fluid imbalance. Anyone engaging in exercise needs to be aware of fluid loss and take steps to stay hydrated. Water or sports drinks should be consumed before, during, and after exercising (HHS, 2017; Mayo Clinic, 2019a).

Surviving a winter storm

Geneva is a registered nurse who works for a large outpatient clinic in the upper midwestern portion of the country. She has been asked to offer a class on how to survive a winter storm. The content of the course should include survival tips when at home, trapped outside, or stranded in a motor vehicle. Geneva is also going to include information about preventing injuries when shoveling snow or using snow blowers.

A winter season does not go by without news reports of people being seriously injured or becoming quite ill during a winter storm. Nurses and other health care professionals could benefit themselves, their families and friends, and their communities at large by offering education pertaining to survival tips during winter storms.

Preparation is the key for surviving winter storms. With advances in weather prediction, severe winter storms seldom occur unexpectedly, giving areas in the storm's path time to prepare. But why wait until the forecast predicts potentially dangerous weather? Here are some suggestions regarding preparation and survival of a winter storm.

Surviving at home

The following actions can help protect those who are dealing with a severe winter storm at home.

Water and electricity

Running water is important to everyone. Water pipes tend to freeze in temperatures below 20˚F (about -7˚C). Interior pipes should be properly insulated. When the temperature is predicted to fall to significantly low levels, faucets should be left running at a slow drip (Bryant, n.d.).

The loss of electricity is a common complication of both winter and summer storms. Loss of electrical power means the loss of light and heat. Telephone service may also be interrupted.

Following are ways to prepare for the loss of electricity and telephone service:

- **Buying a cell phone and keeping it charged**: If the electricity does fail, the charged cell phone should be turned off. It should be used only for emergencies.
- **Opening refrigerator and freezer doors only when absolutely necessary**: Keeping them closed will keep cold air in and help preserve food longer. If possible, food should be placed in a cold space such as an attached unheated garage or even outdoors on a porch. If the temperatures are below freezing, this may preserve frozen foods. Another option for keeping food cold is to fill a cooler with ice or snow and place food and beverages inside of it. Any food placed outside should be in a closed container to secure it from animals.
- **Having the family stay in one room with the door closed to preserve heat**: Unnecessary rooms should be closed off. Sunlight should be allowed to stream through windows during the day, but all windows should be blocked at night. Air leaks in particular should be blocked.
- **Maintaining a box of emergency equipment**: Several flashlights should be included. A battery-operated AM/FM radio should be purchased to monitor the storm and to learn of any emergency preparedness alerts. Plenty of extra batteries should be kept on hand.
- **Using alternative heat sources cautiously**: If the home has a wood-burning fireplace, a supply of wood to be used only during emergencies should be maintained. The chimney should be cleaned on a regular basis. A supply of extra blankets and sleeping bags should be kept for use during emergencies. It is especially important to remember that alternative heating and light sources—lanterns, gas ranges, generators, burning charcoal and wood—produce carbon monoxide, which can build up to dangerous levels in enclosed or semienclosed spaces. Both animals and people can be poisoned by breathing carbon monoxide emanating from these sources. It is essential that all alternative heating sources be in good repair and used only in well-ventilated areas, following manufacturer's instructions. Because carbon monoxide does not have a distinct smell, it is especially important that precautions be taken to avoid exposure.
- **Preventing hypothermia by conserving body heat and staying well hydrated and well nourished**: Warning signs of hypothermia include slurred speech, loss of coordination, confusion, and uncontrollable shivering.
- **Dressing appropriately**: Layers of clothes, wool hats, and gloves help to conserve body heat. A supply of blankets should be kept in case of an emergency (Bryant, n.d.; Centers for Disease Control and Prevention [CDC], 2018a; Graywolf Survival, 2016).

Medical equipment and medications

It is crucial to ensure an adequate supply of all necessary medications to last at least the length of the winter storm. Patients, families, and friends should be advised not to wait until the last minute to fill or refill a prescription. A well-stocked first aid kit should be available in the home at all times. Patients and families of patients who depend on electrically powered equipment—ventilators, home dialysis equipment, intravenous pumps—for survival need to be prepared for power loss. Patients or

their families must know how to safely use alternative power sources such as a generator or battery backup (Graywolf Survival, 2016).

Food

It is important to stay well nourished and well hydrated to avoid hypothermia and other health problems. A stock of food supplies should be maintained. Enough items for each member of the household (including pets) to live for seven days should be kept on hand. Personal hygiene items—including soap, toothpaste, and shampoo—should be part of emergency supplies. Canned and dry goods are recommended in an emergency because of their long shelf life. A manual can opener should be available in case of electricity loss (Bryant, n.d.).

Surviving in a motor vehicle

Becoming stranded in a motor vehicle is not uncommon when traveling during a severe winter storm. This is a dangerous and frightening situation even on well-traveled roads; it can be especially frightening when stranded on a road that that is less traveled. The first rule for survival in this type of situation is to stay in the vehicle. The vehicle offers some protection from the cold and wind. It is also easier for emergency personnel to find a stranded car or truck than it is to find an individual or individuals walking through the snow. If cell phones are available, they should be used only to call for help in order to preserve the battery. Everyone should always keep a cell phone charger in the vehicle (Bryant, n.d.; Graywolf Survival, 2016).

It is fine to run the vehicle for short periods (about 10 minutes every hour) to generate some heat if stranded during a snowstorm. However, it is imperative that the tailpipe is not blocked by snow to avoid carbon monoxide buildup inside the vehicle. Also, the windows of the vehicle should be opened slightly when the car is running to avoid carbon monoxide poisoning (Allstate Blog, 2019; Bryant, n.d.; Graywolf Survival, 2016).

Nursing consideration: When counseling patients and families regarding surviving in a motor vehicle during a snowstorm, nurses should include the following advice. Always tell someone where you are going and what route you are taking when traveling. If you do not arrive where and when you were supposed to, your family and friends will know to alert the authorities. If you have to go out, drive in wintry conditions only with a full tank of gas, a good battery, and tires that are in good condition. Antifreeze should be at appropriate levels, and the vehicle's heater and exhaust system must be in good working condition. Be sure to travel with a first aid kit and a winter emergency kit (Allstate Blog, 2019; Bryant, n.d.; Graywolf Survival, 2016).

It is important for individuals stranded in motor vehicles to keep moving while inside the car or truck. Although there is little room, stranded individuals should stomp their feet, clap their hands, and move their arms and legs as much as possible, at least once an hour, in order to enhance circulation, keep warm, and stay awake. These individuals should also be encouraged to focus on positive thoughts, which is often not easy under such circumstances. Falling into despair increases stress and can interfere with the ability to concentrate and make appropriate decisions (Allstate Blog, 2019; Bryant, n.d.; Graywolf Survival, 2016).

Steps should be taken to make the vehicle as visible as possible. If the snow has stopped falling, open the hood of the vehicle. Hang brightly colored cloth or plastic strips from windows to attract the attention of rescue workers (Allstate Blog, 2019; Bryant, n.d.; Graywolf Survival, 2016).

Everyone should keep a maintained emergency preparedness kit in the vehicle that contains the following:

- Blankets/sleeping bags.
- An AM/FM battery-powered radio (with fresh batteries).
- Brightly colored bits of cloth to use as distress signals.
- Snacks and water (A cup of water should be drunk hourly to avoid dehydration.)
- Snow shovel.
- Tools to scrape ice and snow from the vehicle's windows.
- De-icer.
- First aid kit.
- Tow rope.
- Cat litter to provide traction to help move the vehicle if it is stuck in snow or ice.
- An empty container for human waste (Allstate Blog, 2019; Bryant, n.d.; Graywolf Survival, 2016).

Surviving outside

When going outdoors in the winter, whether for a leisurely stroll or for a brisk workout, everyone should dress appropriately. Loose, warm, layered clothing allows for adequate blood flow, which increases warmth. Hat and gloves should be worn because most heat exits the body through the head and extremities. The outer layer of clothing should be brightly colored so that it can be seen by others. People going out of doors should carry a fully charged cell phone (Bryant, n.d.).

Nursing consideration: Mittens provide more warmth than gloves. Fingers touch each other in mittens, generating heat (Bryant, n.d.).

If stranded outside in winter weather, the first step to take is to find shelter. Cold and wind can reduce the body's temperature to dangerous levels quickly, and the risks for developing hypothermia and frostbite are significant. Deep snow can provide some protection from wind and cold, so digging a snow cave is a good idea. Snow caves are dug out of slopes such as a hill or mountainside or even the flank of a large snowdrift. It is best to avoid locations that are prone to avalanche. There should be an entrance tunnel and a raised interior with ventilation holes. Ideally, the roof of the cave should be at least 2 feet thick with a domed ceiling that is sculpted as smooth as possible to decrease the dripping of melting water. Collapse is a very real danger, especially if positioning it in a place where weight is likely to fall onto it, for example, snow falling from trees or a passing plow throwing snow into the structure. If snow is accumulating quickly, one should continuously check that the escape hole is not blocked and that the structure can hold the increasing weight (Martinelli, 2019).

Tips for safe snow shoveling

George is 45 years old, married, and the father of two teenage children. He exercises regularly, eats a well-balanced diet, does not smoke, and considers himself physically fit. The latest winter storm has blanketed his driveway with about 6 inches of snow on a Sunday afternoon. His children were not home during this storm, having spent the night with friends. Rather than wait for their return, George decides to begin snow shoveling alone because his wife is recovering from abdominal surgery. As he struggles to remove the heavy wet snow, George notices tightness in his chest. He begins to sweat profusely and feel nauseated. George makes his way back into the house with difficulty. Despite his protests, his frightened wife dials 911 for emergency medical help.

Despite his belief that he is physically fit, George's health is still compromised as a result of the physical stress of shoveling snow. It is estimated that snow shoveling is responsible for thousands of injuries and as many as 100 deaths every year. Shoveling snow can place significant strain on the heart. Pushing a heavy snow blower can also cause injuries. Because snowfall is associated with cold weather, it is important for nurses to know that cold weather can increase heart rate and blood pressure (National Safety Council, 2019).

To safely shovel snow, the National Safety Council (2019) recommends the following:

- Do not shovel snow after eating or while smoking.
- Shovel at a slow pace, and stretch out before beginning to shovel.
- Shovel only fresh, powdery snow because it is lighter.
- Push the snow instead of lifting it.
- If snow must be lifted, use a small shovel or only partially fill the shovel.
- Lift with the legs, not the back.

- Never work until exhausted.
- Know the signs of a heart attack. If experiencing such signs, call 911 immediately.

According to the American Academy of Orthopaedic Surgeons (AAOS) (2016), the most common injuries linked to snow removal include sprains, strains, lacerations, and finger amputations, which can occur when using snow blowers.

Here are additional recommendations from AAOS and the Colorado Spine Institute regarding snow shoveling:

- Be sure that you are medically able to shovel snow or use a snow blower. These activities place considerable stress on the body, including the heart. People with pre-existing medical conditions and individuals who do not exercise regularly are at particular risk and should not participate in snow removal.
- Clear snow often. Start the snow removal process as soon as the snow lightly covers the ground. Removing snow early and often helps to avoid heavy, packed snow.
- Dress in light, layered, water-repellent clothing that provides both ventilation and insulation. Wear wool socks and mittens. Wear shoes or boots that have slip-resistant soles.
- Before starting to remove snow, warm up the body's muscles. Snow removal is a physical workout. Warmup should consist of about 10 minutes of light exercise before beginning the snow removal process.
- Take frequent breaks and drink plenty of fluids to stay hydrated.
- Push the snow instead of lifting it whenever possible.
- Use proper body mechanics. Lift with the legs, do not bend at the waist, keep the back straight and knees bent, and squat with the legs apart. Shovel small amounts of snow at a time rather than large heavy amounts. Never throw snow over the shoulder or to the side, which requires twisting motions that could injure the back.
- Use a proper snow shovel. The shovel should have a curved handle. The length of the shovel is important. The length is correct when you can slightly bend your knees, flex the back 10 degrees or less, and hold the shovel comfortably.

Although the use of a snow blower is generally preferred to the use of a snow shovel, there are still risks associated with its use. The AAOS (2016) recommends the following safety tips when using a snow blower:

- Never place hands, fingers, or any other part of your body in the snow blower. If the snow blower jams, stop the engine and wait for at least 5 seconds before using a solid object (not hands or fingers) to clear snow or debris from the snow blower.
- Stay away from the engine, which can become hot and burn hands and fingers.
- Keep children away from the snow blower. Never leave the snow blower unattended.
- Add fuel only when the snow blower is off. Never add fuel when the engine is running or still hot.

Self-assessment quiz Question #1

It is a cold winter day in mid-February. The weather service predicts a snowfall of 6 to 10 inches, with the potential for a foot or more, depending on the track of the storm. Right now, however, the sky is only slightly cloudy, with puffy white clouds dominating a mostly blue sky. Eighteen-year-old Jay and his 16-year-old brother decide to drive Jay's car to the only movie theater in town showing the latest science fiction thriller that is all the rage, a 30-minute drive away. After the movie, the boys are surprised to find the ground blanketed by about 6 inches of snow. It is still snowing; the winds are fierce; daylight has faded; the visibility is poor. Jay is wearing a heavy jacket over a long-sleeved t-shirt. His brother has dressed in multiple layers. Halfway home, their car slides off the road into a ditch. This road is not well traveled and, in the dark, their car is difficult to see. The boys use their cell phones to call for help but are told that it will take at least two hours before help can make it to their location. The emergency dispatcher tells them to wait inside their car. The boys, however, decide to find help on their own. They leave their car and start walking along the deserted road.

When evaluating the boys' actions during this winter emergency, it is fair to state that:

a. Jays is more appropriately dressed for winter weather than his brother.
b. Both boys correctly evaluated the weather service forecast.
c. Leaving the car and walking in the cold is a bad decision.
d. Cell phones are not the best way of communicating in this type of emergency.

Evidence-based practice! Evidence from research findings has shown that safety measures when removing snow be implemented (AAOS, 2016). Nurses should incorporate such safety measures as part of their patient/family education regarding winter safety.

Carbon monoxide poisoning

Mrs. Connors is a 70-year-old retiree. She lives on a fixed income and saves money whenever possible. In the cold winter months, Mrs. Connors often tries to keep her heating bills down by using a wood-burning stove. Unfortunately, the stove is in a poorly ventilated area of her home. One day her daughter, Margaret, is unable to reach her by telephone for an entire day. Worried, she arrives at her mother's home to find Mrs. Connors semiconscious and confused. Margaret calls 911 and attempts to rouse her mother. By the time emergency personnel arrive, Margaret is also feeling ill and complains of a headache and dizziness. Both women are suffering from carbon monoxide poisoning.

At least 430 people die annually in the United States from carbon monoxide (CO) poisoning. An estimated 50,000 people in the U.S. visit the emergency department every year because of CO poisoning (CDC, 2019a).

CO is an odorless, colorless gas found in combustion fumes. These fumes are produced by such sources as motor vehicles, small gasoline engines, stoves, lanterns, heating systems, charcoal burners, and wood and gas ranges. When these sources are not in good repair or are used in improperly ventilated spaces, excessive amounts of carbon dioxide fill the air and CO poisoning can occur (CDC, 2018a; Mayo Clinic, 2019b).

Nursing consideration: CO poisoning can occur at any time of the year. However, during the winter months, when alternative heating systems are often used, the risk increases significantly (CDC, 2018a).

Pathophysiology

CO poisoning is potentially life-threatening. The pathophysiology of CO poisoning is based on the capability of red blood cells to bind with carbon monoxide. Red blood cells retrieve carbon monoxide molecules more rapidly than they retrieve oxygen molecules. If there are significant levels of carbon monoxide in the air, the body will replace the oxygen in the blood with carbon monoxide. This prevents the cells of the body from obtaining oxygen. CO can also combine with critical proteins in body tissues, leading to tissue and cell injury. CO poisoning can be fatal (CDC, 2018a; Mayo Clinic, 2019b).

Signs and symptoms

CO poisoning is a medical emergency. However, signs and symptoms can be subtle and may mimic other diseases and disorders. Following are signs and symptoms:

- Blurred vision.
- Chest pain.
- Confusion.
- Dizziness.
- Headache.
- Nausea and vomiting.
- Shortness of breath.
- Weakness (CDC, 2018a; Mayo Clinic, 2019b).

Nursing consideration: Note that the preceding symptoms can mimic other problems such as heart attack or stroke. Nurses must be alert to the environmental surroundings of patients displaying these signs and symptoms so that CO poisoning can be recognized (Mayo Clinic, 2019b).

CO poisoning can affect all individuals and animals. Unborn babies, infants, elderly people, and individuals who have chronic heart disease, respiratory disorders, or anemia are at higher risk than the general population (CDC, 2018a).

Nursing consideration: People who are intoxicated or asleep are especially vulnerable to the effects of CO. They may be exposed to fatal amounts of the gas before they realize they are in danger (Mayo Clinic, 2019b).

Treatment

CO poisoning is a medical emergency. The victim should be moved away from the source of the gas and taken to an area with plenty of fresh air. Then 911 should be called immediately (CDC, 2018a; CDC, 2019a; Mayo Clinic, 2019b).

Emergency personnel administer oxygen to decrease the effects of CO. If the patient is unable to breathe independently, mechanical ventilation is necessary. Blood may be drawn to measure carbon monoxide blood levels. In cases of severe CO poisoning, the patient may be placed in a pressurized hyperbaric oxygen chamber. The entire body is placed inside the chamber in which air pressure is more than twice as high as normal atmospheric pressure. The increased pressure speeds up the replacement of CO with oxygen. The use of hyperbaric oxygen therapy is sometimes recommended for pregnant women who were exposed to high levels of CO because unborn babies are highly susceptible to injury from CO poisoning (Mayo Clinic, 2019b).

Complications

The effects of CO poisoning can range from minimal discomfort to permanent injury and even death. The extent of damage depends on the degree and length of exposure to the gas. Possible complications include heart damage, even years after the poisoning occurred, permanent brain damage, and death (Mayo Clinic, 2019b).

Prevention

Prevention of CO poisoning is not difficult, but it is essential. One of the simplest ways to prevent CO poisoning is to install CO detectors near every sleeping area in the home. Batteries should be checked at least twice a year. If the alarm sounds, all occupants and pets should leave the house or building immediately and call 911 (Mayo Clinic, 2019b).

Nursing consideration: All living quarters should have CO detectors. Detectors are also available for motor homes and boats (Mayo Clinic, 2019b).

It is surprising how many individuals fail to realize the dangers of sitting in a running motor vehicle in a closed space. Garage doors must be opened before starting and running any vehicle. If the garage is attached to the house, the door to the house should be firmly closed. Additionally, a qualified mechanic should evaluate the functioning of the exhaust system of motor vehicles every year (CDC, 2018a; Mayo Clinic, 2019b).

Evidence-based practice! Research has shown how swiftly exposure to CO poisoning can lead to physiological pathology (CDC, 2018a; Mayo Clinic, 2019b). It is imperative that nurses educate patients, families, and, as appropriate, colleagues regarding the pathophysiology of CO poisoning and how to prevent it!

Maintenance of home appliances and equipment is another important step to help prevent CO poisoning. Heating systems, water heaters, and all other appliances that burn gas, oil, or coal should be serviced by a qualified technician annually (CDC, 2018a; CDC, 2019a). Fireplaces and other chimneys should be cleaned every year (Mayo Clinic, 2019). If an odor is detected coming from the cooling unit of a gas refrigerator, there may be a defect in the system. This type of defect can also release carbon monoxide (CDC, 2018a).

One of the most common causes of CO poisoning is the use of alternative heating and cooking sources when the power is out. Winter storms may bring power outages that result in the loss of heat in homes and businesses.

Here are some safety tips regarding alternative heating and cooking sources that nurses and other health care professionals should pass along to patients to avoid the dangerous buildup of CO:

- Gas ranges or ovens should never be used to heat the home.
- Never use a charcoal grill or barbecue grill indoors. These devices were designed to be used outdoors.
- Never use a portable camp stove indoors.
- Never use a generator inside the home or in a garage or near a window, door, or vent (CDC, 2018a).

In summary, CO poisoning can be deadly. It is imperative to recognize its signs and symptoms, as well as the factors that contribute to its development, so that prompt treatment can be obtained. Prevention of CO poisoning is critical. Simple precautions can prevent excess exposure to this dangerous gas. Nurses and other health care professionals should teach patients how to prevent, as well as how to recognize, CO poisoning.

Frostbite

Frostbite is actually frozen body tissue (usually the skin but sometimes deeper body tissue) that occurs with exposure to extreme cold. With exposure to extreme cold, blood vessels contract, leading to a reduction in blood flow and lack of oxygen to affected areas (KidsHealth.org, 2015; Mayo Clinic, 2019c; WebMD, 2019a). Most cases of frostbite occur in adults between 30 and 49 years of age, but children, older adults, and individuals with circulatory problems are at greater risk for frostbite (WebMD, 2019).

Other factors also increase the risk of frostbite:

- Alcohol abuse.
- Cardiovascular disease.
- Circulatory problems.
- Diabetes.
- Malnutrition.
- Certain medications, including anticholinergics, antidepressants, antihistamines, beta blockers, and diuretics.
- Peripheral vascular disease.
- Raynaud's phenomenon.
- Scarring from major burns.
- Skin diseases.
- Smoking (Mayo Clinic, 2019c; MedlinePlus, 2017; WebMD, 2019a).

Nursing consideration: People with frostbite of the arms or legs may also have hypothermia. Patients with frostbite should be assessed for hypothermia and given necessary treatment (MedlinePlus, 2017).

Pathophysiology

Frostbite is most likely to affect areas that are farthest away from the core of the body—toes, fingers, feet, hands, nose, and ears (WebMD, 2019). Frostnip is a milder form of cold injury and generally affects the cheeks, nose, ears, fingers, and toes. Affected areas are red, numb, or tingly and can usually be treated at home by gentle rewarming (KidsHealth.org, 2015; Mayo Clinic, 2019c).

Frostbite is classified as deep or superficial. Superficial frostbite affects the skin and subcutaneous tissue and most often occurs on the face, ears, extremities, and other exposed areas (Mayo Clinic, 2019c; MedlinePlus, 2017; WebMD, 2019a).

The effects of superficial frostbite may go unnoticed at first, but as frostbite progresses, signs and symptoms such as these occur:

- Aching and throbbing sensations in affected areas.
- Hard, pale, cold skin.

- Mottled blue-gray skin that persists after the person moves to a warmer place.
- Pins and needles sensation (Mayo Clinic, 2019c; MedlinePlus, 2017; WebMD, 2019a).

Nursing consideration: Patients may be uncomfortable because of the initial aching and pins and needles sensations. However, as frostbite advances, affected areas become numb and lack sensation. Some patients assume that because there is no longer pain or other uncomfortable sensations, there is nothing to worry about when, in fact, numbness and lack of sensation mean that the frostbite is progressing (KidsHealth.org, 2015; Mayo Clinic, 2019c; MedlinePlus, 2017). Nurses must be sure that patients and their families are aware that lack of pain actually indicates that the condition is becoming more serious.

Deep frostbite progresses beyond subcutaneous tissue and usually impacts the hands or feet. The skin is white and hard, and after the victim returns to a warm place, the skin takes on a purple-blue color (Mayo Clinic, 2019c; MedlinePlus, 2017; WebMD, 2019a).

Differentiation among the different types of frostbite is made by identifying the following signs and symptoms:

- **Frostnip**: This is a mild type of frostbite. The affected area feels numb. As the skin is warmed, pain and tingling may occur. There is no permanent skin damage with frostnip.
- **Superficial frostbite**: Superficial frostbite causes the skin to become reddened and then white or pale. The skin may start to feel warm, which indicates serious skin involvement. As the skin is rewarmed, the surface of the skin may look mottled, and stinging, burning, and swelling may occur. A fluid-filled blister may develop 12 to 36 hours after the skin is rewarmed.
- **Deep (severe) frostbite**: Severe frostbite affects all layers of the skin, which turns white or bluish gray. Symptoms include numbness, losing all sensation of cold, and pain in the affected area. Joint and muscle function may be compromised. Large blisters may develop 24 to 48 hours after rewarming of the skin. Later, the affected area becomes black and hard as tissue dies. Deep frostbite can also cause gangrene, tissue necrosis, blisters, and damage to tendons, muscles, nerves, and bone (Mayo Clinic, 2019c; MedlinePlus, 2017; WebMD, 2019a).

Nursing consideration: If blood vessels and nerves are not affected by frostbite, a complete recovery is possible. However, if blood vessels and nerves are affected, the damage may be permanent, and gangrene can develop. Gangrene may necessitate amputation of the affected parts of the body (Mayo Clinic, 2019c; MedlinePlus, 2017).

Treatment

Immediate treatment for frostbite victims includes the following actions:

- The patient should be brought indoors immediately. If stranded outdoors, the patient should be moved to a warm place and sheltered from the cold.
- All wet clothing should be removed; wet clothing draws heat away from the body.
- Any clothing or jewelry that could possibly constrict blood flow must be removed.
- Affected areas must be rewarmed by immersing them in warm, not hot, water for 15 to 30 minutes. The recommended temperature is around 100˚F. If affected areas such as cheeks or nose cannot be immersed in warm water, warm, wet cloths should be applied instead. Warming is complete when sensation returns to the affected areas, they become pink, and the skin becomes soft.
- As affected areas are warmed, the patient will feel pain, so analgesics are administered as indicated.

Nursing consideration: Temperature of the warm water should be carefully monitored! Before warming, sensation in affected areas is diminished and patients will not be able to tell if the water is too hot, potentially leading to additional injury or burns (Mayo Clinic, 2019c; Medline Plus, 2017; WebMD, 2019a).

- After warming has been accomplished, apply dry, sterile dressings to affected areas. Place dressings between frostbitten fingers and toes to keep them separated. If the lower extremities are affected, the patient should not be allowed to walk.
- Move thawed (rewarmed) areas as little as possible.
- Provide patients with warm fluids to drink (KidsHealth.org, 2015; Mayo Clinic, 2019c; MedlinePlus, 2017).

Nursing consideration: Refreezing of thawed areas can cause even more severe damage. Keep all frostbitten areas warm and wrapped with sterile dressings if possible. If affected areas cannot be protected from refreezing, it might be better to postpone the initial rewarming process until patients are taken to a warm location (Mayo Clinic, 2019c; MedlinePlus, 2017; WebMD, 2019a).

A number of actions should not be performed when treating frostbite:

- Do not thaw frostbitten areas if they cannot be kept thawed. Refreezing may increase damage and complications.
- Do not apply direct heat such as a heating pad to affected areas. This may cause burning of frostbitten areas.
- Do not rub or massage affected areas.
- Do not rub snow on the affected areas.
- Do not disturb or rupture blisters.
- Do not allow patients to smoke or drink alcoholic beverages during recovery; both can interfere with circulation and delay healing (Mayo Clinic, 2019c; MedlinePlus, 2017; WebMD, 2019a).

Prevention

Every effort should be made to avoid frostbite. Everyone should stay updated about weather forecasts and heed warnings about cold and wind. Even brief exposure to cold can cause frostbite (Kidshealth.org, 2015; Mayo Clinic, 2019c; MedlinePlus, 2017).

Self-assessment quiz question #2

Andy, an active 10-year-old, is thrilled to find out that, because of a big snowstorm, school has been cancelled. He and his friends plan to spend much of the day playing outdoors. The sun is slowly emerging from behind a heavy covering of clouds although the day remains quite cold. Andy's mother dresses him in warm outdoor clothes, including mittens and a hat that covers his ears. She wraps a scarf around his nose and mouth and ensures that he is wearing woolen socks inside waterproof snow boots. Late in the afternoon, Andy and his friends decide to build a snow cave. As they play in the snow, Andy loses one of his mittens. Rather than go home for another mitten, Andy continues to play. He and his friends are having too much fun! Unfortunately, after an hour or two, Andy's mittenless hand begins to feel numb, and the skin is pale and cold. Andy does not want to be a "baby," so he continues to play, but after another 20 minutes Andy cannot feel his hand at all, and his skin begins to turn a bluish-gray. Frightened, he goes home, and his alarmed mother fears that he has frostbite.

When evaluating Andy, findings suggest that:

a. Andy has a mild type of frostbite.
b. Andy is showing signs of severe frostbite.
c. Andy's mother is over-reacting to Andy's complaints.
d. Andy probably has superficial frostbite.

Hypothermia

Marian is a mountain climber and is highly respected by others in the mountain-climbing community. During a climb, an unexpected snowstorm develops, stranding Marian and her companions at a high altitude for several hours. As the storm abates and they begin their descent, Marian is shivering uncontrollably, her speech is slurred, and she is confused. She cannot remember where she is or how she got here. The muscles in her arms and legs are rigid. Her companions use the radio to reach base camp and to inform others that Marian is in trouble. Rescuers help them to reach base camp and medical help. Marian is displaying signs of moderate hypothermia.

Hypothermia is a decrease in body temperature, usually caused by prolonged exposure to cold. Other causes include diabetes and thyroid disorders, severe trauma, and alcohol and drug use. Normal body temperature is about 98.6˚F. In cases of hypothermia, the body temperature falls below 95˚F. Older adults, infants, and young children are more susceptible to hypothermia than older children and young to middle-aged adults (Li, 2018; Mayo Clinic, 2019d).

Nursing consideration: Although hypothermia is seen most often during the winter months, it can also occur during warmer months when exposed to cold; for instance, while hiking or climbing at high elevations or capsizing into cold waters during a boating expedition (Li, 2018; Mayo Clinic, 2019d). Nurses must caution patients and families about the various conditions under which hypothermia may occur.

Pathophysiology

The body loses heat (up to 90%) primarily through the skin. The rest is lost via exhalation during respiration. Heat loss via the skin occurs mostly through radiation and increases when the skin is exposed to wind or moisture (Li, 2018; Mayo Clinic, 2019d; WebMD, 2019b).

The hypothalamus of the brain serves as the body's temperature control center. When exposed to cold, the hypothalamus works to produce heat by triggering shivering (a protective response to produce heat) and increasing levels of thyroxine and epinephrine (Li, 2018; Mayo Clinic, 2019d; WebMD, 2019b).

Hypothermia affects all body systems. Specifically, hypothermia causes a decrease in the depolarization of cardiac pacemaker cells, which leads to bradycardia. Cardiac output decreases and arrhythmias may develop. Respiration slows, patients may go into shock, and cardiac arrest and death can occur (Li, 2018; Mayo Clinic, 2019d; WebMD, 2019b).

Signs and symptoms

The severity of hypothermia is categorized according to body temperature and presenting signs and symptoms:

- **Mild hypothermia**: Body temperature is 90˚ to 95˚F. Signs and symptoms include severe shivering, slurred speech, and amnesia.
- **Moderate hypothermia**: Body temperature is 82˚ to 90˚F. Signs and symptoms are unresponsiveness, confusion, muscle rigidity, peripheral cyanosis, and signs of shock.
- **Severe hypothermia**: Body temperature is lower than 82˚F. Signs and symptoms are quite severe and include loss of deep tendon reflexes, dilated pupils, lack of palpable pulse, and no audible heart sounds. Ventricular fibrillation may occur, possibly leading to cardiac arrest and death (Mayo Clinic, 2019d; WebMD, 2019b).

Nursing consideration: Very young children and older adults, who are at increased risk for hypothermia, may have symptoms that are not obvious or particularly specific for hypothermia, including changes in mental acuity (Li, 2018). Signs of hypothermia in infants include being cold to the touch and having bright red skin and unusually low energy (WebMD, 2019b). Nurses must be aware of the differences in presenting signs and symptoms among various age groups.

Treatment

If patients have no pulse or show no signs of breathing, cardiopulmonary resuscitation (CPR) should be started immediately. Because hypothermia can mimic death and it triggers body responses to protect the brain, resuscitation may be effective even if the patient has been unresponsive for a long time. CPR should be continued until the patient is adequately rewarmed or is responsive (Li, 2018; WebMD, 2019b).

If the patient is not in cardiac arrest, or after resuscitation is successful, the following are immediate first aid actions to take when helping someone with hypothermia:

- Persons with hypothermia should be handled gently, and movements should be limited to those that are necessary. Avoid massage or rubbing.

Nursing consideration: Abrupt, jarring, or vigorous movements may trigger cardiac arrest in someone with hypothermia. Nurses and other health care professionals must be extremely gentle when handling a patient with hypothermia (Mayo Clinic, 2019d).

- The affected person should be moved out of the cold and to a warm, dry location as soon as possible. If movement to a better location is not possible, the patient should be shielded from cold and wind and maintained in a horizontal position.
- All wet clothing should be removed, and layers of dry blankets or coats should be applied. The head should be covered, with only the face exposed.
- If on the cold ground, the person should be placed on a blanket or other warm surface.
- Breathing must be monitored. If breathing stops, CPR should be started by a trained individual.
- If the person is alert and can swallow, warm, sweet, nonalcoholic, noncaffeinated beverages should be provided.
- If available, first aid warm compresses, a makeshift compress of warm water in a plastic bottle, or a towel that has been warmed in a dryer should be applied only to the neck, chest wall, or groin. Warm compresses should not be applied to the arms and legs. This would trigger blood flow to the heart, lungs, and brain, causing a decrease in core body temperature, which can be fatal.
- Direct heat should not be applied. Avoid hot water, heating pads, or heating lamps, which can damage the skin or trigger arrhythmias (Mayo Clinic, 2019d).

Depending on the severity of the hypothermia, medical treatment may be necessary. Such treatment includes the following:

- For mild hypothermia, covering the patient with heated blankets and offering warm fluids is adequate.
- For more serious cases of hypothermia, blood rewarming may be necessary. Blood is drawn, warmed, and recirculated in the body. A hemodialysis machine or heart bypass machine may be used to accomplish this.
- Warm intravenous fluid may be administered.
- Humidified oxygen may be administered via nasal cannula or mask to help raise body temperature (Mayo Clinic, 2019b).

Prevention

Prevention of cold injuries should be part of patient/family education. Preventive actions include the following:

- Wearing warm windproof, waterproof layers of clothing when working, exercising, or engaging in leisure activities outdoors.
- Wearing mittens instead of gloves: Mittens allow fingers to touch each other, helping to generate heat.
- Wearing waterproof footwear over two pairs of cotton socks next to the skin and wool over the cotton socks.
- Wearing a scarf or hat that covers the ears. This helps to avoid heat loss through the head.
- Avoiding alcohol and smoking.
- Avoiding prolonged exposure to the cold (Li, 2018; Mayo Clinic, 2019d; WebMD, 2019b).

Seasonal affective disorder (SAD)

Seasonal affective disorder (SAD) is a cyclical mood disorder that usually begins in young adulthood and is characterized by periods of depression at a certain time of year, usually in the winter (National Institute of Mental Health [NIMH], n.d.; Videbeck, 2017). SAD typically affects people in the fall and winter, when the periods of daylight are shortened, and disappears during the spring and summer. However, there is a less common form of SAD that occurs during the summer months as well (NIMH, n.d.; Videbeck, 2017).

Although SAD can affect anyone, it is more common in the following populations:

- People who live in locations with long winter nights.
- People who live far from the equator.
- People with a family history of SAD.
- People who have depression or bipolar disorder.
- Young adults.
- Females (Mayo Clinic, 2017; NIMH, n.d.; Videbeck, 2017).

The exact cause of SAD is unknown. Some experts believe that the disorder may be caused by a lack of sunlight. The lack of light may interfere with the sleep-wake cycle and other types of circadian rhythms. People who are affected by SAD may overproduce melatonin, which regulates sleep. They may also produce less vitamin D (Mayo Clinic, 2017; NIMH, n.d.).

SAD may also be the result of the body's failure to regulate the neurotransmitter serotonin. Results from some research studies have shown that people with SAD produce more serotonin transporter protein in the winter months than in the summer months. Higher amounts of serotonin transporter protein leave less serotonin available at the neuron synapses. The primary function of the transporter is to recycle the neurotransmitter back into the presynaptic neuron (Mayo Clinic, 2017; NIMH, n.d.).

Signs and symptoms

Following are signs and symptoms of SAD:

- Feelings of hopelessness.
- Feelings of sadness.
- Decrease in ability to concentrate.
- Decrease in energy.
- Increased appetite (craving carbohydrates).
- Weight gain.
- Irritability.
- Loss of interest in usual activities.
- Moodiness.
- Sleepiness.
- Social withdrawal (Mayo Clinic, 2017; NIMH, n.d.).

Diagnosis

Diagnosis is based on signs and symptoms and their recurrence during a particular time of year. A physical exam is performed, and lab tests such as a complete blood count or thyroid blood studies may be done to help to rule out other conditions that could be causing the symptoms. A mental health evaluation is performed to evaluate mental health status and identify any contributing mental health conditions (Mayo Clinic, 2017).

Note that SAD is not considered as a separate disorder. Rather, it is a type of depression occurring as a seasonal pattern. For a diagnosis of SAD, the patient must meet full criteria for major depression that occurs with specific seasons for at least two years (NIMH, n.d.).

Treatment

Major types of treatment for SAD are medication, light therapy, psychotherapy, and vitamin D (NIMH, n.d.).

Medication. Selective serotonin reuptake inhibitor (SSRI) antidepressants are used in the treatment of SAD. The Food and Drug Administration (FDA) has also approved the use of bupropion, another type of antidepressant, for the treatment of SAD (NIMH, n.d.).

Health care providers may recommend initiating treatment with an antidepressant before symptom onset each year. Some people may need to continue to take antidepressants even after symptoms subside (Mayo Clinic, 2017).

Nursing consideration: It is important to teach patients and families that it may take several weeks to feel the full benefits of antidepressants. Young adults, adolescents, and children should be monitored for suicidal ideation when antidepressant therapy is initiated (Comerford & Durkin, 2020).

Light therapy

Light therapy, also referred to as phototherapy, has been a foundation of SAD treatment since the 1980s. The concept of light therapy is that such therapy replaces the diminished sunshine of the fall and winter. Light therapy mimics natural outdoor light and likely causes changes in brain chemicals associated with mood (Mayo Clinic, 2017; NIMH, n.d.). Light therapy is performed by having the affected person sit in front of a light box first thing in the morning every day from early fall until spring. Light boxes generally filter out ultraviolet rays and require 20 to 60 minutes of exposure to 10,000 lux of cool-white fluorescent light, an amount that is about 20 times greater than ordinary indoor lighting (NIMH, n.d.).

Psychotherapy

A type of psychotherapy that has been found an effective means of treatment for SAD is cognitive behavioral therapy (CBT) (NIMH, n.d.). CBT is designed to help patients identify and alter negative thoughts and behaviors that add to the symptoms of SAD; learn positive, healthy ways to cope with SAD; and learn how to manage stress (Mayo Clinic, 2017).

Vitamin D

Vitamin D supplements alone are not considered an effective SAD treatment. Research has shown that people with SAD were found to have low levels of vitamin D. These low levels are typically the result of inadequate dietary intake or insufficient exposure to sunshine. Research results for the use of vitamin D as a treatment have been mixed. Some studies showed that vitamin D supplementation may be as effective as light therapy. Others found that supplementation had no effect (NIMH, n.d.).

Additional interventions

Steps should be taken to make the environment brighter. Blinds and curtains should be open. Tree branches or other objects that block sunlight through windows should be trimmed or removed. Patients should sit close to bright windows at home, work, or school.

Exercise can help to elevate mood and relieve stress. Exercise recommendations are 30 minutes of physical activity three to five days a week. Patients should be encouraged to spend time out of doors. It is recommended that time spent outdoors should occur within two hours of arising in the morning. Adequate rest and sleep are important. Patients should get seven to nine hours of sleep each night (Mayo Clinic, 2017; WebMD, 2019).

Self-assessment quiz question #3

Angela, a college sophomore, dreads the coming winter months. It is early October, and Angela begins to feel moody and anxious. As the hours of daylight lessen, Angela's mood becomes worse. Normally outgoing and popular, Angela complains of feeling tired and refuses invitations to activities that she usually enjoys. Angela's appetite increases and she begins to gain weight. Her sister complains, "Every winter it's the same old thing. You're grouchy and moody and tough to be around!" Angela's friends are concerned and encourage her to visit the health clinic on campus. After interviewing Angela, the nurse practitioner suspects that Angela is suffering from seasonal affective disorder.

After the diagnosis of SAD is confirmed, which of the following statements regarding Alice's treatment is correct?

a. Vitamin D supplementation has been shown effective in almost all patients.
b. Light therapy likely causes changes in brain chemicals associated with mood.
c. CBT focuses on negative thoughts and how to deal with them.
d. Adequate sleep and rest demands that patients sleep 6 to 10 hours per night.

Summary of winter weather-related health issues

The preceding discussions of winter weather-related health issues are not exclusive. Many of these issues occur at other times of the year depending on specific circumstances. Likewise, many of the issues discussed in the summer weather-related health issues section also occur during winter months. For example, drowning is discussed as a summer-weather issue, but can also occur during winter months because of indoor swimming pools and unsafe ice activities. It is the intent of this program to provide information categorized into the times of year when certain health issues most often occur.

Winter weather does present its own unique challenges. Snow storm survival, frostbite, and hypothermia, for example, can be life-threatening. However, proper preparation and preventive techniques can help prevent some winter weather-related health issues. When they do occur, nurses must recognize their effects and be prepared to initiate appropriate treatment interventions.

Allergic rhinitis

Mark is an investment banker in Boston and has a busy business travel schedule. As winter turns to spring, Mark is preparing to travel to Charleston, South Carolina, where the trees are in full bloom and the grass is green. Mark is the envy of his friends, who would love to take advantage of a trip to a warmer climate where spring has already arrived. Mark, however, is anything but pleased. He makes sure he packs plenty of over-the-counter antihistamines and nasal spray. Mark is allergic to grass, weeds, and tree pollens; he is not looking forward to this trip.

Mark is one of 30 to 60 million Americans who suffer from allergic rhinitis, a reaction to airborne, inhaled allergens. Allergic rhinitis, often referred to as allergies or hay fever, is most common in young children and adolescents, but it can occur in all age groups, sometimes lasting throughout an individual's lifetime. Depending on the allergen, allergic rhinitis may occur seasonally, as in Mark's case, or year-round, known as perennial allergic rhinitis (Mayo Clinic, 2019e; Sheikh, 2018). Examples of seasonal allergies are allergic reactions to tree pollens, grass pollens, weeds, and ragweed. Examples of perennial allergies are allergic reactions to dust, dogs, and cats.

Nursing consideration: Allergic rhinitis can lead to complications, including sinusitis, ear infections, nasal polyps, and nasal obstruction. Asthma may be exacerbated, there may be sleep disturbances, and quality of life may be reduced (Mayo Clinic, 2019e). Nurses must teach patients and families that it is important to obtain treatment for allergies.

Allergies occur when an individual's immune system overreacts to specific substances, such as pollen, grass, and ragweed, called allergens. The immune system perceives these allergens as threats to the body's health and wellness and attacks them, thus causing reactions that create the unpleasant symptoms we associate with allergies (Mayo Clinic, 2019e; MedlinePlus, 2019a).

For pollens, the number in the air can determine the severity of the body's response. The weather also plays a part in the degree of response. Hot, dry, windy days are more likely to have a great many pollens in the air. Cool, damp, rainy days have fewer airborne pollens; most of them are washed to the ground (MedlinePlus, 2019a; Sheikh, 2018). On the other hand, certain other allergies can be more common during rainy times, such as allergies to mold and mold spores, some of which are released in wet, dark weather or when decaying leaves or yard waste are present (Asthma and Allergy Foundation of America, 2015).

Signs, symptoms, and diagnosis

For individuals with seasonal allergies, signs and symptoms appear at specific times of the year, usually during the spring, summer, or fall depending on when the causative allergen is most prevalent. Soon after coming into contact with allergens, the allergic person develops an itchy nose, mouth, throat, skin, or any area of the body; itchy, watery eyes; runny nose; and sneezing (Mayo Clinic, 2019e; MedlinePlus, 2019a; Sheikh, 2018.

If exposure to the triggering allergens continues, patients may develop the following:

- Coughing.
- Dark circles under the eyes.
- Headache.
- Impaired sense of smell.
- Irritability.
- Puffiness under the eyes.
- Sore throat (Mayo Clinic, 2019e; MedlinePlus, 2019a; Sheikh, 2018).

Following are risk factors for allergic rhinitis:

- Having other types of allergies or asthma.
- Having atopic dermatitis.
- Having a family history of allergic rhinitis.
- Living or working in environments that expose people to allergens such as dust mites.
- Having a mother who smoked during the first year of the person's life (Mayo Clinic, 2019e).

It is important to distinguish between allergic rhinitis and the common cold. With allergic rhinitis, there is no fever. Symptoms occur immediately after exposure to allergens and include a runny nose with thin, watery nasal discharge. The symptoms last as long as the person is exposed to the allergens. With the common cold, there may be a low-grade fever. Symptoms develop one to three days after exposure to a cold virus and last for three to seven days. Symptoms include runny nose with watery or thick yellow discharge and body aches (Mayo Clinic, 2019e).

Diagnosis and treatment

Allergy tests that determine which allergens cause a reaction are the main diagnostic tools. Tests used to determine this are the skin prick test and the allergy blood test (Mayo Clinic, 2019e).

For the skin prick test, small amounts of materials that can trigger allergic reactions are pricked into the skin of the arms or upper back. Allergic reactions cause hives to develop at the site of the allergen administered. It is recommended that allergy and asthma specialists perform skin testing.

For the allergy blood test, a blood sample is sent to a laboratory to measure the immune system's response to a specific allergen. This test measures the amounts of allergy-causing antibodies in the bloodstream. These antibodies are referred to as E (IgE) antibodies.

There is no cure for allergic rhinitis, but there are a number of treatment options. The first step is to limit exposure to allergens that cause the allergic rhinitis. In addition to avoidance, which may not always be possible, there are other treatment measures:

- **Medications**:
  - **Nasal corticosteroids**: These drugs help to prevent or reduce nasal inflammation, itching, and runny nose. They are safe for long-term use for the majority of people, and adverse effects are rare.
  - **Antihistamines**: Antihistamines help to relieve itching and a runny nose but are not especially effective on congestion. They come in tablet form, nasal sprays, and eye drops.
  - **Oral corticosteroids**: Corticosteroid pills, for example, prednisone, may be used to reduce severe allergy symptoms. However, long-term use has the potential to cause significant adverse effects, including cataracts and osteoporosis.
- **Sinus rinsing**: Rinsing the nasal passages with distilled sterile saline can reduce nasal congestion and flush both mucus and allergens from the nasal passages.
- **Immunotherapy (desensitization)**: This process involves the administration of allergens via injection to which the patient is known to be sensitive. Research has shown that immunotherapy is effective for the treatment of pollens, dust mites, and cat dander. Research is less conclusive for dog dander and mold allergies. Overall success rates may be as high as 80% to 90% for some allergens. Immunotherapy is a long-term process. Improvement may not be noticed for 6 to 12 months, and therapy may be continued for three to five years (Mayo Clinic, 2019e; Sheikh, 2018).

Nursing consideration: Immunotherapy should be given only by qualified health care providers in a setting where emergency equipment is readily available. Patients must wait in the health care setting for 30 minutes after the injection to be monitored for adverse reactions, including severe local reactions and anaphylaxis. Patients at risk for anaphylaxis should carry an epinephrine pen with them in the event of an anaphylactic reaction, which can occur hours after the desensitization injection (Mayo Clinic, 2019e; Sheikh, 2018).

Insect bites and stings

Most reactions to insect bites and stings are mild. Their effects are typically nothing more than redness, minor swelling, itching, or stinging sensations. However, on rare occasions, insect bites and stings can cause severe reactions such as anaphylaxis. Some insects carry disease such as the West Nile virus, which is discussed later in this program (Mayo Clinic, 2018a).

Reactions, signs, and symptoms

The severity of response to insect bites and stings varies from person to person. There are three general types of reactions to insect bites and stings:

1. Mild (minor).
2. Moderate (large) reaction.
3. Severe allergic reaction (anaphylaxis) (Mayo Clinic, 2019f; WebMD, 2018).

Mild reaction

In most cases of mild reaction, signs and symptoms of stings and bites are minor and include the following:

- Instant sharp burning pain at the site of the sting or bite.
- Red welt at the site of the sting or bite.
- A small white spot where the stinger punctured the skin: If a bee is responsible, the stinger may be visible.
- Slight swelling around the sting or bite area: Swelling and pain usually subside within a few hours in most people (Mayo Clinic, 2019f; WebMD, 2018a).

Moderate reaction

A small percentage of individuals who sustain an insect bite or sting have a large local reaction with extreme redness or swelling at the site of the sting or bite that gradually grows over the next few days (Mayo Clinic, 2019f). Moderate reactions usually resolve within 5 to 10 days. A moderate reaction does not mean that succeeding reactions will be severe. People who have moderate reactions with each sting should consult with their health care providers about treatment and prevention (Mayo Clinic, 2019f).

Severe allergic reaction (anaphylaxis)

Anaphylactic reactions can cause shock, loss of consciousness, and respiratory and cardiac arrest within minutes of the sting (Ignatavicius, Workman, & Rebar, 2018). During the period from 2000 to 2017, a total of 1,109 deaths from hornet, wasp, and bee stings occurred in the U.S., with an average of 62 deaths per year (CDC, 2019b).

Following are the signs and symptoms of anaphylaxis:

- Skin reactions in parts of the body other than the sting or bite area, including hives, pruritus, and flushed or pale skin.
- Swelling of the throat and tongue.
- Trouble breathing.
- Weak, rapid pulse.
- Nausea, vomiting, or diarrhea.
- Dizziness.
- Fainting.
- Loss of consciousness.
- Shock.
- Respiratory and cardiac arrest (Ignatavicius, Workman, & Rebar 2018; Mayo Clinic, 2018a; Mayo Clinic, 2019f).

Anaphylaxis is a medical emergency, and 911 should be called immediately if signs and symptoms of anaphylaxis are present or if patients are known to have had severe allergic reactions to insect bites or stings in the past. Patients who are severely allergic to insect stings or bites should wear a medical identification bracelet or carry a card with that information at all times. They should also carry an anaphylaxis kit with epinephrine at all times. Children and their parents should make teachers and school nurses aware of the existence of severe allergic reactions, including food allergies and severe allergies to other substances in addition to insect stings or bites, and be sure that teachers and nurses have access to, and know how to use, emergency equipment, including epinephrine pens (Ignatavicius, Workman, & Rebar, 2018; Mayo Clinic, 2018a; Mayo Clinic, 2019f).

Nursing consideration: Those persons who have a severe allergic reaction to a bee sting have a 25% to 65% chance of having an anaphylactic reaction the next time they are stung (Mayo Clinic, 2019f).

Treatment

For most victims of insect stings or bites, simple home treatment is enough. If the victim does not have a known severe allergic reaction history and has no signs or symptoms of anaphylaxis, the following treatment interventions are usually adequate.

For minor reactions to a sting or bite, the following actions should be taken. If the stinger is present, remove the stinger using a scraping motion with a credit card or other straight-edged object. Do not pull the stinger out directly with fingers or tweezers; pulling actions may release more toxins. Wash the affected area with soap and water. Apply cold compresses to the affected area to relieve pain and reduce swelling (Mayo Clinic, 2019f; MedlinePlus, 2019b).

For large moderate local reactions, these actions should be taken. Remove the stinger, if present, with a scraping motion. Wash the area with soap and water and apply cold compresses. Apply hydrocortisone cream or calamine lotion to reduce redness, itching, or swelling. Administer oral antihistamines to reduce itching and swelling. Tell patients to avoid scratching the area. This will only exacerbate itching and swelling and increase the possibility of infection (Mayo Clinic, 2019f; MedlinePlus, 2019b).

Anaphylaxis requires immediate emergency medical intervention. Respiratory distress, wheezing, swelling of the face or mouth, tightness of the throat, difficulty swallowing, weakness, or cyanosis all indicate a life-threatening reaction (Mayo Clinic, 2019f; MedlinePlus, 2019b).

In the event this reaction occurs away from a health care setting, 911 should be called immediately. If the patient has an emergency epinephrine autoinjector, it should be used promptly. The patient, the family, friends, teachers, school nurses, and work colleagues should all be instructed in its use (Mayo Clinic, 2019f; MedlinePlus, 2019b).

Nursing consideration: Patients/families should be cautioned to make sure that the epinephrine in the autoinjector has not expired. The expiration date should be monitored and the medication replaced before expiration (Mayo Clinic, 2019f).

Prevention

All patients should know how to protect themselves (as much as possible) from insect bites and stings, especially patients who have a history of severe allergic reactions. Here are preventive measures:

- Applying insect repellants when outdoors.
- Avoiding coming into close contact with nests or hives containing insects.
- Avoiding eating sweet foods and beverages outdoors.
- Avoiding participating in outdoor activities such as hiking, boating, or swimming alone if severe allergic reactions are possible. In the event of such a reaction, it is important to have help close at hand and to have prescribed medications immediately available.
- Avoiding rapid, jerky movements when near insects.
- Avoiding wearing perfume or brightly colored clothing that might attract insects.
- Avoiding, whenever possible, activities that might arouse insects in hives or nests, including mowing the lawn or trimming shrubbery. Have hives and nests removed by professionals.
- Clearing away garbage promptly, especially sweet foods and animal feces. These items attract flies and wasps.
- Covering food containers and trash cans tightly.
- Spraying insecticide inside garbage cans and trash receptacles.
- Not driving a motor vehicle with the windows open.
- If severely allergic to stings or bites, wearing a medical alert bracelet and carrying an anaphylaxis kit with epinephrine at all times.
- Installing screens on all windows: Never open windows unless there are screens to prevent insects from entering the home.
- Wearing shoes and socks when outdoors.

- When drinking beverages outdoors, using wide, open cups so that if insects fly into the beverages, they will be more easily seen.
- When in wooded or rural areas, wearing long-sleeved shirts, long pants, socks, and shoes (Mayo Clinic, 2019b; MedlinePlus, 2019b).

Self-Assessment Quiz Question #4

Grace is 5 years old and about to begin kindergarten. She is excited about going to the same school as her big brother, who attends second grade. Grace and her mother arrive early on her first day of school to speak to the school nurse. Grace explains to the nurse, "I can't get stung by bees or I get really sick. If they sting me, you have to give me a shot. I don't like shots. So I'll try not to get stung when I play outside at recess." Grace's mother smiles and explains to the nurse that Grace is quite allergic to bee stings, and they have come to give the nurse an epinephrine pen for use in an emergency. Little Grace adds, "My brother is really lucky; when he gets stung the spot just gets red and a little big."

What type of treatment should be administered to Grace's brother if he is stung by a bee?

a. Wash the affected area and apply cold compresses.
b. Administer antihistamines.
c. He should be told to carry an epinephrine pen.
d. No treatment is needed for this type of response to a bee sting.

Animal bites

Animal bites can occur outdoors and indoors at any time of the year. However, during the warmer months, when people spend more time outdoors, the possibility of nondomestic and domestic animal bites increases. Stray and wild animals—including bats, raccoons, and skunks—bite thousands of people every year (MedlinePlus, 2019c).

Animal bites that puncture the skin have a greater probability of becoming infected. The risk of infection is increased in people who have diabetes, peripheral artery disease, or a weakened immune system (MedlinePlus, 2019c).

Domestic pets are the most common cause of animal bites. Dog bites are the most common, but cat bites are more likely to become infected. A cat's teeth are long and sharp and cause deeper puncture wounds (Mayo Clinic, 2017b; MedlinePlus, 2019c).

If a person is bitten by an unknown domestic pet or a wild animal, they should try to keep the animal in sight if safely possible while notifying animal control authorities, who will determine if the animal should be captured or quarantined (Medline Plus, 2019c). People should never approach or try to capture any animal that is behaving strangely or acting aggressively—it may have rabies. It is best to call 911 and explain the situation. Emergency personnel should contact the proper authorities to safely capture the animal. Persons who have been bitten should go to a safe place, away from any immediate threat from the animal, and await the arrival of authorities. Any animal whose rabies vaccination status is unknown should be captured and quarantined (Medline Plus, 2019c).

Rabies is not the only disease that can be transmitted via animal bites. Viral, bacterial, fungal, and parasitic infections are also possible. These infections may cause flu-like signs and symptoms, headache, and fever (Medline Plus, 2019c).

Treatment

Treatment depends on the severity of the bite and the animal that caused the bite. A health care provider should be seen within 24 hours of any bite that breaks the skin because of the risk of infection (MedlinePlus, 2019c).

The persons providing first aid should remain calm and be supportive. They should wash their hands with soap and water before initiating first aid and wear gloves, if available, if the wound is bleeding. Hands should be washed again after providing first aid (Cronan, 2018; Mayo Clinic, 2017b; MedlinePlus, 2019c).

Wound care involves the following actions:

- Stopping bleeding by applying direct pressure with a clean, dry cloth.
- Washing the wound with mild soap and warm running water: The bite should be rinsed for three to five minutes.
- Applying an antibacterial ointment to the wound.
- Applying a sterile bandage.
- Obtaining medical help immediately if the bite is on the neck, head, face, hand, fingers, or feet (Cronan, 2018; MedlinePlus, 2019c).

For wounds that are deep, stitches may be needed. A tetanus shot may be administered, and antibiotics may be needed (MedlinePlus, 2019c).

Animal control should be notified if the animal behaves in an unusual way; if it is an unknown pet or a pet that has not had a rabies vaccination; or if it is a stray or wild animal. People should be counseled not to approach these types of animals. Note what they look like, how they were behaving, and their location (MedlinePlus, 2019c).

Nursing consideration: CDC recommends that people who have been in close contact with bats or who were asleep and woke up to find bats present obtain medical advice even if they have not been obviously bitten. Bat bite marks can be difficult to see and are often not felt. Bats often carry rabies (Mayo Clinic, 2017b).

Treatment initiatives in the case of a possible rabid animal

Dogs are the primary source of human rabies deaths, contributing up to 99% of all rabies transmissions to humans. Rabies infection causes tens of thousands of deaths annually, mainly in Asia and Africa. An estimated 40% of people bitten by a possibly rabid animal are younger than 15 years of age (World Health Organization [WHO], 2019).

Immediate thorough washing of the wound with soap and water after contact by a possibly rabid animal is critical and can save lives. The wound should be flushed and washed for a minimum of 15 minutes with soap and water, povidone iodine, or other substances that kill the rabies virus. After initial first aid, the patient should be transferred to an emergency department immediately. Rabies vaccine will generally be administered (WHO, 2019).

Prevention

Steps should be taken to avoid animal bites as much as possible and to avoid any possibility of rabies. Such steps include ensuring vaccination of domestic pets as appropriate; teaching adults and children to avoid approaching or touching strange animals, especially wild animals; and teaching adults and children not to provoke or tease animals (Medline Plus, 2019c; WHO, 2019).

Concussion

Concussion is the most common traumatic brain injury caused by a blow to the head. The blow is hard enough to cause the brain to move back and forth within the skull, striking the skull once or multiple times.

The most common symptom of a concussion is headache (CDC, 2019c; Cleveland Clinic, 2015a).

Nursing consideration: Most young people with a concussion recover within a few weeks. However, others may have symptoms for months or longer. It is imperative that ongoing follow-up with health care providers be initiated and that return to sports or other strenuous activities not occur too soon (CDC, 2019c).

Concussion affects each person somewhat differently. Concussion can occur during any sports activity, motor vehicle accident, or even simply tripping and hitting the head against a hard object. In other words, it can happen at any time of year or during even the simplest activities. Concussions occur more often during warmer months when more people are outdoors and participating in activities that increase risk, including sports and hiking. Nurses and other health care professionals should educate the community about the potential for concussion, its impact, how to recognize it, and how it is treated (CDC, 2019c).

Signs and symptoms

People may not be able to explain specific symptoms. They may simply say that they "don't feel right" after a bump, blow, or jolt to the head. Following are common signs that may be observed by others:

- Appears dazed or stunned.
- Forgets an instruction, assignment, or is unsure of what to do.
- Moves clumsily.
- Answers questions slowly.
- Loses consciousness even briefly.
- Exhibits mood, behavior, or personality changes.
- Is unable to recall events before or after being hit (CDC, 2019c).

Following are symptoms that may be reported by the patient:

- Dizziness.
- Anxiety.
- Vertigo.
- Vision disturbances.
- Behaving in ways that are unusual for the injured person.
- Confusion.
- Fatigue.
- Headache.
- Irritability.
- Lethargy.
- Loss of consciousness.
- Memory problems.
- Slowed reaction time.
- Trouble concentrating.
- Unconsciousness (CDC, 2019c: Cleveland Clinic, 2015a).

Exercise or activities that require significant concentration, such as studying or working on a computer, may cause symptoms to reappear or to become worse (CDC, 2019c).

What to do if a concussion is suspected

One of the biggest dangers associated with concussion is the tendency to ignore the injury or to dismiss it as trivial. This is especially common among athletes who are reluctant to be removed from a game or who have such minor symptoms that they fail to realize that a serious injury has actually taken place. All persons' mental acuity and level of consciousness should be evaluated as part of concussion assessment (CDC, 2019c).

Nurses and other health care professionals must educate the public about the inherent dangers of head injury and what to do if there is a possibility of concussion. Education includes the following important points:

- Do not attempt to hide any type of head injury. Students should report this type of injury to their teachers, coaches, and parents. Adults should report their symptoms to their health care professionals and undergo evaluation.
- Follow instructions given by health care professionals and others trained in concussion assessment, including sports medicine professionals.
- Take time to recover from a concussion. The brain needs time to heal even after a minor injury. During this healing period, the brain is much more susceptible to injury. In the case of student athletes, returning to sports activities too soon may increase their risk for repeat concussions, which can cause permanent brain damage (CDC, 2019c; Cleveland Clinic, 2015a).

Coaches and trainers often use the ImPACT Test to assess individuals from the age of 10 years through adulthood for concussion. It is not designed to be used as a stand-alone tool or as a diagnostic instrument, but as a tool to help coaches and trainers make decisions about return to play after an athlete experiences a blow to the head and after medical evaluation. The tool takes about 25 minutes to complete. It is a computer-based test that measures aspects of cognitive functioning, including attention span, working memory, problem solving, and reaction time (Young Song, 2019).

Diagnosis

Diagnosis involves obtaining a history of the events leading up to the injury, a review of signs and symptoms, and a neurological examination. Significant attention is paid to the patient's level of consciousness and mental status; cranial nerve and motor function; deep tendon reflexes; and orientation to person, place, and time. If a severe head injury is suspected, a CT scan or MRI of the brain is performed to rule out fractures and serious injuries (Cleveland Clinic, 2015b; Ignatavicius, Workman, & Rebar, 2018).

Treatment

Concussion treatment depends on the type and extent of injury. The primary treatment is rest so that the brain has time to recover from a concussion. Activities that exacerbate symptoms, such as general physical exertion, sports, or anything that requires vigorous movement, are to be avoided. Mental activities that require thinking and mental concentration, such as playing video games, reading, texting, doing schoolwork, or watching television, may also trigger or exacerbate symptoms. Health care providers may recommend that schooldays or workdays be shortened or that frequent breaks be taken during the day (Cleveland Clinic, 2015c; Mayo Clinic, 2019g).

As symptoms resolve, activities that involve thinking and concentration may be added to patients' regimen. Patients should consult with their health care providers before adding activities or resuming physical activity such as sports (Cleveland Clinic, 2015c).

Nursing consideration: An athlete with concussion should not participate in the remainder of the game that day and should not participate in sports as long as symptoms are present. An athlete may need to wait one to two weeks or longer before being cleared to play (Cleveland Clinic, 2015c). Nurses must help patients and families understand the importance of these guidelines.

Here are general instructions for patients regarding concussion treatment:

- Get plenty of sleep and rest.
- Avoid visual and sensory stimuli.
- Eat healthy, well-balanced meals.
- Avoid strenuous activities and activities that could lead to another concussion.
- Avoid alcohol.
- Do not take any medications, including over-the-counter medications, without approval from health care providers.
- Avoid air travel. Such travel can exacerbate symptoms (Cleveland Clinic, 2015c; Mayo Clinic, 2019g).

Patients should not take any pain medication, which could mask symptoms of concussion. Acetaminophen may be taken with the approval of health care providers. NSAID-type medications should be avoided because they increase bleeding risk (Cleveland Clinic, 2015c).

Prevention

Prevention of concussion is important for children and adults alike. Here are some tips for preventing concussion:

- Always wear seatbelts and buckle children in appropriately sized safety seats.
- Wear a well-fitting helmet when biking, riding a motorcycle, skating, skiing, horseback riding, or playing contact sports.
- Put up handrails on stairs to prevent falls.
- Place safety gates on stairs to protect children from falling.
- Install grab bars in bathrooms, and place nonslip mats in the tub and on the floors.
- Make sure lighting is good.

- Remove safety and tripping hazards such as throw rugs.
- Children should use playgrounds with soft material underneath them such as mulch or sand, not grass or dirt (CDC, 2019d; Cleveland Clinic, 2015d).

Self-assessment quiz question #5

Sharon and her friends are avid basketball fans and play on their high school team. Sharon has hopes of earning a college basketball scholarship based on her athletic ability. As spring turns to summer, she is spending more time outdoors fine-tuning her game. Her younger brother, Rusty, who is only a "weekend" athlete, helps her practice during the summer. He and his friends often participate in impromptu basketball games at the local park along with Sharon and her friends. During one of these games Rusty falls and strikes his head on the hard outdoor court. He is slightly dazed but assures his friends that he is fine. Sharon, however, knows the potential dangers of concussion and insists that Rusty be evaluated at the first aid station nearby in the park's recreational facilities. Health care providers determine that Rusty has sustained a concussion.

All of the following actions should be taken to safeguard Rusty EXCEPT:

a. Evaluating the level of consciousness and mental acuity.
b. Ensuring that Rusty gets lots of sleep and rest.
c. Explaining that he must avoid strenuous activity.
d. Suggesting that Rusty participate in quiet activities such as watching television.

Lacerations and puncture wounds

Janice and her husband are enthusiastic cyclists and cycle trails and back roads from early spring through late fall. On one their outings, Janice falls from her bicycle and sustains a laceration of her left leg and a puncture wound to her right arm.

A laceration, commonly referred to as a cut, is a break or opening of the skin. A laceration may be deep, smooth, or jagged. It can be confined to the surface of the skin or penetrate the skin so deeply that tendons, muscles, ligaments, nerves, blood vessels, or bones can be affected (MedlinePlus, 2017b).

A puncture wound is also referred to as a small entry wound. These wounds are generally made by pointed objects, including nails, knives, or sharp stones. Lacerations and puncture wounds can affect any area of the body. Deep lacerations or puncture wounds can damage underlying organs, tendons, muscles, ligaments, nerves, blood vessels, and bones. X rays or other imaging tests may be necessary to determine the extent of damage or to detect the retention of objects that caused the wounds (Ignatavicius, Workman, & Rebar, 2018; MedlinePlus, 2017b).

Cuts and puncture wounds are generally minor and can be effectively dealt with at home. Nurses in outpatient setting may need to provide first aid for lacerations and puncture wounds. They may also be asked to provide first aid in community settings by neighbors or friends.

Medical attention should be obtained if the laceration or puncture wound meets any of the following conditions:

- Is deep and dirty.
- Is bleeding uncontrollably.
- Affects someone who has not had a tetanus shot or booster within the last five years.
- Cannot be properly cleaned.
- Contains an impaled object.
- Contains a retained foreign object.
- Is the result of an animal bite.
- Is over a joint and deep.
- Is caused by a metal or rusty object such as a nail or fishhook.
- Is deep and on the head, neck, scrotum, chest, or abdomen.
- Causes body parts such as bone, muscle, or intestine to protrude from the wound: These parts should *not* be pushed back into the body. They should be covered with a clean material until emergency help is obtained (Mayo Clinic, 2019h; Medline Plus, 2019c; WebMD, 2018b).

Basic first aid for minor lacerations includes the following:

- The persons providing first aid should wash their hands and put on gloves if available.
- If the wound does not stop bleeding on its own, gentle pressure should be applied with a clean cloth or bandage for 20 to 30 minutes.
- If possible, the area that is wounded should be elevated above the level of the heart.
- Pressure should be applied continuously.
- Those applying first aid and the patient should not check if the bleeding has stopped. Reducing pressure could dislodge the clot that is forming and further prolong the bleeding time.

Nursing consideration: If the patient has not had a tetanus shot within the past five years, a booster injection may be recommended. If the wound is the result of a bite from a cat or dog, confirm that its rabies vaccine is current if possible (Mayo Clinic, 2019h).

- The wound should be cleansed with mild soap and water. Debris and dirt should be removed by gently irrigating the wound with water. If cleansing the wound fails to remove debris and dirt, medical assistance should be obtained.
- The wound should be observed to see if any objects remain inside. The wound should not be probed to find objects. If objects remain in the wound or if part of the object that caused the injury is missing, medical attention should be sought.
- After the wound is cleansed and dirt and debris are removed, a thin layer of antibiotic cream or ointment should be applied to reduce the chance of infection (Mayo Clinic, 2019h; Medline Plus, 2019c; WebMD, 2018b).

All wounds, even minor ones, should be monitored for infection. Signs of infection are warmth, redness, pus-like drainage, increased pain, and swelling (Mayo Clinic, 2019h). If signs and symptoms of infection develop, patients should seek medical advice.

Near drowning

Near drowning is a term used for survival following suffocation caused by submersion in fluid. Some experts in the field exclude from this definition people who have temporarily survived near drowning and die within 24 hours (Encyclopedia of Children's Health, 2019).

Although drowning is always fatal, there are several possible outcomes of near drowning. These are survival without long-lasting effects, survival with permanent brain damage, and death after a 24-hour period of survival (Encyclopedia of Children's Health, 2019).

Near drowning occurs rapidly. Within three minutes of fluid submersion, the majority of people are unconscious. Within five minutes the brain begins to suffer from hypoxia. Cardiac arrhythmias may occur, as may cardiac arrest. Acidosis may develop, and the volume of circulating blood may increase or decrease. If these physiological effects are not quickly resolved, there may be permanent brain damage or progression to death (Encyclopedia of Children's Health, 2019).

Nursing consideration: It is possible to drown in only a few inches of water. Nurses should teach patients and families to never assume that children (or adults) are safe when exposed to submersion in small amounts of fluid (Cantwell, 2019).

Drowning is death by suffocation from being submerged in fluid (Merriam-Webster, n.d.). Some resources refer to dry drowning and wet drowning. Wet drowning refers to laryngeal spasm caused by water entering the upper airways. In the majority of drowning cases, the spasm relaxes, and water enters the lungs. In an estimated 10% to 20% of drowning cases, the laryngeal spasm fails to relax, and water does not enter the lungs. This is referred to as dry drowning. However, today most experts believe that there is no clinical difference between wet and dry drowning, and distinguishing between the two does not affect treatment or outcomes (Wedro, 2018).

Risk factors

A number of risk factors are associated with near drowning and drowning for infants and children:

- Lack of supervision in the bathtub or near bodies of water such as swimming pools.
- Owning or having access to a swimming pool. Statistics show that children who have drowned have generally been out of sight for less than five minutes.
- Lack of life jackets on boats.
- Child abuse or neglect (Wedro, 2018).

Nursing consideration: Parents and other caregivers need to be taught that pool toys are not substitutes for life jackets or adult supervision. Infants and children should never be left alone near or in water (Wedro, 2018).

Following are risk factors for adolescents and adults:

- Alcohol consumption: Alcohol use plays a part in 50% of teenage and adult drowning deaths.
- Inability to swim.
- Medical emergency such as a heart attack while in the water.
- Fatigue or exhaustion while swimming.
- Failure to know about the environment in which someone is swimming, for example, diving into shallow water and sustaining a serious injury.
- Boating accidents.
- Failure to wear life jackets.
- Scuba diving accidents.
- Attempting suicide (Wedro, 2018).

Treatment

Emergency treatment begins with CPR if needed and immediate notification of 911. Victims should be removed from the water as soon as possible. Rescue breathing should be initiated immediately, even while the victim is still in the water. Chest compressions are not possible in the water because of the water's buoyancy. As the victim is removed from the water and prepared for transport to the hospital, precautions should be taken to prevent spinal cord injuries, particularly cervical spine injuries (Cantwell, 2019).

Each case of near drowning is unique. The type and temperature of the water, how much water has been aspirated, the length of time in the water, and the victim's state of health before the event all influence the outcome (Cantwell, 2019; Encyclopedia of Children's Health, 2019).

Nursing consideration: Resuscitation should be initiated even if victims have been in the water for lengthy periods. Victims have been successfully resuscitated even after long periods of submersion, especially victims who have been submerged in cold water. Determining whether the near drowning or drowning occurred in warm or cold water is essential. Patients who arrive at the hospital in cardiopulmonary arrest after a warm-water submersion generally have a poorer prognosis (Cantwell, 2019; Encyclopedia of Children's Health, 2019).

Here is a summary of treatment initiatives for drowning victims:

- Rescue breathing is initiated as soon as possible, even while the victim is still in the water.
- As the victim is being removed from the water, every effort must be made to stabilize their spine.
- During transport by emergency personnel, the spine is stabilized, and 100% oxygen is administered. If necessary, the patient is intubated and mechanical ventilation performed. CPR continues until arrival at the hospital.
- On arrival at the hospital emergency department, CPR and mechanical ventilation are continued as needed.
- Intravenous lines are initiated and an indwelling urinary catheter is inserted.
- Arterial blood gas levels and oximetry values are obtained. Based on these values, oxygen therapy is administered, sodium bicarbonate is given, and electrolyte imbalances are corrected.
- A nasogastric tube is inserted if abdominal distention is present.
- Cerebral edema is treated with osmotic diuretics, bronchodilators are given to reduce bronchospasms, and antibiotics are administered to prevent infection.
- Temperature management may be initiated such as rewarming with warmed oxygen. Hypothermia may be induced based on research findings that indicate therapeutic hypothermia improves oxygenation to the brain. In fact, therapeutic hypothermia may provide some neuroprotection (Cantwell, 2019; Encyclopedia of Children's Health, 2019; Wedro, 2018).

Prognosis

Prognosis depends the amount of time the person was without adequate oxygenation to the brain. Without oxygen, brain damage occurs, and such damage is the primary long-term concern when treating near drowning victims. Pneumonia is also a common complication, generally occurring within the first 24 hours of the near drowning (Encyclopedia of Children's Health, 2019).

Near drowning victims who are alert and oriented upon arrival at the ED have an excellent prognosis. If the patient is confused or unconscious, prognosis depends on the length of time the patient was submerged in water. Early rescue and treatment facilitate full recovery. The younger and healthier the patient is, the better the prognosis. The colder and cleaner the water, the better the outcomes are (Wedro, 2018).

Prevention

In most cases, near drowning and drowning can be prevented with basic safety measures:

- Never leave children unattended near any type of water—swimming pools, lakes, rivers, toilets, bathtub.
- Install proper fencing around swimming pools or other aquatic landscaping. The fencing should be at least 5 feet high and have a self-closing and locking gate.
- When not in use, cover swimming pools, spas, and hot tubs appropriately.
- Patronize only public/community swimming pools that have adequately trained life guards and a proper ratio of life guards to swimmers.
- Avoid drinking alcohol or using illegal drugs before participating in water activities.
- Avoid taking prescription drugs that cause sedation or otherwise affect neurologic status before participating in water activities.
- Teach children water safety and how to swim as soon as possible in their growth and development. However, it should not be assumed that just because children know how to swim that they are safe from near drowning and drowning.

- Wear, and insist that others wear, floatation safety devices when boating or engaging in water activities that indicate the need for such devices.
- Never swim alone.
- Know the depth of water before diving.
- Know the thickness of ice before walking on it.
- Learn CPR (Encyclopedia of Children's Health, 2019; Wedro, 2018).

Self-assessment quiz question #6

Jason, who is 14 years old, will begin his freshman year of high school in a few days. He and his friends plan one last big day of swimming and hiking before the start of high school. Despite his parents' caution to not swim in a nearby river, which is quite deep and has swift currents after several weeks of heavy rain, Jason and his friends decide to do so anyway. He tells himself that his parents never need to find out and he does not want his friends to think he is a "mamma's boy." As the boys swim, they find that the water is really quite cold and moving faster than they had previously thought. Reluctant to have the day end, Jason decides to take one more quick swim before heading for home. He becomes trapped in a rapidly moving current and disappears under the water. His friends frantically search for him, but the water is moving too fast. Finally, after nearly 30 minutes, they are able to find and to pull Jason from the water. He is unconscious and not breathing. One of his friends grabs his phone and dials 911. Several adults hear the boys' cries for help and arrive at the scene.

Based on the case presentation, all of the following steps should be taken EXCEPT:

a. Avoid resuscitation efforts because prognosis would have been better if Jason had been in warm water.
b. Initiate rescue breathing because successful resuscitation can occur even after long periods in the water.
c. Make every effort to stabilize Jason's spine.
d. Ask Jason's friends to tell them what they know about Jason's state of health before the accident.

Heat-related illnesses

It is a hot, humid day in mid-July. David is an avid exercise enthusiast and runs daily, no matter the weather or the time of year. His wife is concerned and advises him not to run. The heat index is excessive, and the local radio and television stations are broadcasting heat advisory warnings, as well as recommendations that outdoor activities be curtailed. David ignores his wife's concerns, telling her that he will be home in less than an hour. About midway through his run, David develops a headache and notices that his heart is beating unusually rapidly. He slows his pace, but these symptoms do not subside and he begins to feel nauseated and dizzy. David is showing signs of heat exhaustion, a category of heat syndrome.

Heat-related illnesses occur with prolonged or intense exposure to high temperatures. As the body attempts to cool itself, blood moves rapidly to the surface of the skin. This movement causes less blood to be available to vital organs such as the brain and heart. Although most people completely recover from heat-related illnesses, heatstroke can be fatal if not promptly and properly managed (WebMD, 2019d).

Contributing factors

The following factors contribute to the risk of excessive heat production and heat syndrome:

- Excessive alcohol intake.
- Being dehydrated.
- Wearing excess clothing that interferes with sweat evaporation.
- Amphetamine use.
- Anticholinergic use.
- Antihistamine use.
- Cardiovascular disease.
- Chronic illness or disability.
- Dehydration.
- Lack of air conditioning.
- Exercise.
- Excessive heat and humidity.
- Impaired functioning of the hypothalamus.
- Impaired sweat gland function.
- Infection.
- Obesity.
- Age: older adults and children under 5 years of age.
- Phenothiazine use.
- Pregnancy.
- Respiratory disease (Mayo Clinic, 2018b; WebMD, 2019d).

Nursing consideration: Heat-related illnesses, especially heatstroke, can cause a number of complications depending on how long the body temperature is excessively high. Complications include vital organ damage and death (Mayo Clinic, 2018b). Nurses must be familiar with the potential consequences of heat-related illnesses.

Categories and treatment of heat-related illnesses

There are three major categories of heat syndrome:

1. Heat cramps.
2. Heat exhaustion.
3. Heatstroke.

Heat cramps

Heat cramps refers to the cramping of muscles caused by excessive heat production and the loss of fluids and sodium. Potassium and magnesium may also be lost. Heat cramps generally occur with vigorous exertion. Heat cramps occur most often during heavy exercise in hot temperatures (WebMD, 2019d).

The muscles most often affected are calves, arms, back, and abdominal wall. Treatment is usually simple, and medical attention is seldom needed. People affected with heat cramps should rest and cool down. They should drink clear juice or sports drinks that contain electrolytes. Gentle range of motion exercises can be performed and gentle massage of the affected muscles can be done. Strenuous activities should be avoided for several hours or longer after the cramps go away. If cramps do not resolve within an hour or two, health care providers should be contacted (Mayo Clinic, 2018c).

Heat exhaustion

Heat exhaustion occurs when the body loses significant amounts of fluid and electrolytes by sweating excessively, especially during hard physical labor or exercise. Loss of fluids and electrolytes can interfere with circulation and with cerebral function (WebMD, 2019d).

Nursing consideration: People with cardiac, respiratory, or renal problems or who are on low-sodium diets are especially vulnerable to heat exhaustion (WebMD, 2019d).

Following are the signs and symptoms of heat exhaustion:

- Confusion.
- Dizziness.
- Extreme diaphoresis (sweating).
- Fatigue.
- Fainting.

- Headache.
- Orthostatic hypotension.
- Slight temperature elevation.
- Muscle and abdominal cramps.
- Nausea and vomiting.
- Pale, clammy skin.
- Weak, rapid pulse.
- Thirst.
- Weakness (Mayo Clinic, 2018d).

Patients suffering from heat exhaustion seldom require hospitalization or medical intervention. They should be moved to a cooler area, preferably an air-conditioned room, and have their clothing loosened. Cool, but not icy, fluids that contain electrolytes, such as sports drinks, should be provided. Drinks that contain alcohol or caffeine should be avoided. The person may be sprayed or sponged with cool water and fanned (Mayo Clinic, 2018d).

If symptoms become more severe or fail to resolve, medical attention may be needed. Signs of patient deterioration are fainting, agitation, confusion, seizures, inability to swallow fluids, and a core rectal body temperature of 104˚F or higher (Mayo Clinic, 2018d).

Heatstroke
Heatstroke is a medical emergency requiring hospitalization. Heatstroke is defined as a condition in which the core body temperature is higher than 104˚F accompanied by complications involving the central nervous system (loss of consciousness and confusion). Other signs and symptoms are altered mental state or behavior, hot and dry or slightly moist skin, nausea and vomiting, flushed skin, rapid pulse and respiratory rate, and throbbing headache (Mayo Clinic, 2017c).

Risk factors
Risk factors for susceptibility to heatstroke include:
- **Age**: The very young and adults over the age of 65 are at higher risk.
- **Exertion in hot weather**: People who work and train in hot weather such as athletes are at higher risk.
- **Sudden exposure to heat**: Abrupt exposure to hot weather can put people at risk.
- **No air conditioning**: Air conditioning is the most effective means of cooling.
- **Medications**: Medications—including vasoconstrictors, beta blockers, diuretics, antidepressants, and antipsychotics—increase vulnerability to heatstroke.
- **Certain health conditions**: Cardiac or respiratory disease increases risk as does being obese, being sedentary, and having a history of heatstroke (Mayo Clinic, 2017c).

Treatment
Heatstroke is a medical emergency. Patients exhibiting signs and symptoms need to be transported to a hospital as soon as possible. While waiting for the arrival of paramedics, immediate first aid should be provided and involves moving patients to a cool, preferably air-conditioned area, and removing unnecessary clothing. Air should be fanned over the patient and ice packs applied to the axillae, groin, neck, and back. These areas have multiple blood vessels that are close to the skin, and cooling them may help to lower body temperature. If ice packs are not available, the patient's skin should be moistened with any water source available. If possible, the patient should be placed in a shower or tub of cool water (Mayo Clinic, 2017c; WebMD, 2019e).

On arrival at the emergency department, steps are taken to rapidly reduce body temperature through the use of hypothermia blankets and application of ice packs. Airway, breathing, and circulation are monitored, and assistance is provided as needed. Intravenous infusions of fluids and electrolytes are administered. A nasogastric tube is inserted to prevent aspiration, and benzodiazepines are given to control any seizure activity (Mayo Clinic, 2017c; WebMD, 2019e).

Prevention of heat-related illness/heatstroke
When the heat index is high, time spent outdoors should be strictly limited and avoided when possible. Strenuous outdoor activity should be avoided during the hottest part of the day. When the heat index is high, exercise should be done in an air-conditioned gym.

The following steps should be taken to avoid heat syndrome:
- Stay hydrated. Drink plenty of fluids, at least eight glasses of fluid per day.
- Avoid alcohol and caffeine, which can increase fluid loss and exacerbate all categories of heat syndrome.
- Wear loose, light-colored clothing and a hat.
- Check on the elderly and others who are at high risk for heat syndrome.
- Keep curtains or blinds closed during the hottest part of the day (Mayo Clinic, 2017c; WebMD, 2019e).

Lyme disease

Lyme disease is a bacterial disease that can affect many of the body's systems. It is transmitted via a bite from an infected blacklegged tick. Untreated Lyme disease can spread to joints, the heart, and the nervous system. The majority of cases are successfully treated with several weeks of antibiotic therapy (CDC, 2019f).

Possible cases of Lyme disease are to be reported to state and local health departments by health care providers and laboratories. About 30,000 cases of Lyme disease are reported to CDC every year. However, some cases still go undetected or unreported. Thus this number may not be an accurate representation of the actual number of cases. CDC estimates that the actual number may be as high as 300,000. CDC recommends a standard national surveillance system to accurately track where Lyme disease is occurring and with what frequency (CDC, 2019g).

Pathophysiology
Ticks can attach to any part of the body but are often found in areas that are hard to see, such as the groin, axilla, and scalp. In most cases, the tick must be attached for 36 to 48 hours or longer before Lyme disease bacteria can be transmitted (CDC, 2019h).

The majority of humans are infected from the bites of nymphs, which are immature ticks that are smaller than 2 millimeters. Such small ticks are very difficult to see. They typically feed during the spring and summer months (CDC, 2019h).

Adult ticks can also transmit Lyme disease. They are much larger than nymphs and easier to see and remove before they have time to transmit the bacteria. Adult ticks are most active during cooler months of the year (CDC, 2019h).

Diagnosis
Diagnosis can be problematic because signs and symptoms are similar to many other disorders. Recognizing a tick or a tick bite can help in the diagnostic process, but many people are not even aware that they have been bitten.

Signs and symptoms
Signs and symptoms depend on the stage of infection.

Early signs and symptoms
Early signs and symptoms appear from 3 to 30 days after being bitten and include fever, chills, headache, fatigue, joint and muscle aches and pains, and enlarged lymph nodes, which may occur in the absence of rash. Erythema migrans (EM), a rash, occurs in about 70% to 80% of infected patients. It begins at the site of the bite (in about seven days) and spreads gradually to a size of 12 inches or more across. It may be warm to the touch but is seldom itchy or painful. It can resemble a target or a bullseye (CDC, 2019i).

Later signs and symptoms
These symptoms can occur days to months after being bitten:
- Severe headaches and neck stiffness.
- Additional EM rashes on other parts of the body.
- Facial palsy.
- Arthritis with severe joint pain and swelling, especially of the knees and other large joints.
- Intermittent muscle, tendon, joint, and bone pain.
- Heart palpitations or arrhythmias.
- Episodes of dizziness or shortness of breath.
- Inflammation of the brain and spinal cord.

- Nerve pain.
- Shooting pains, numbness, or tingling of the hands or feet (CDC, 2019i).

Laboratory testing
CDC recommends a two-step process for Lyme disease testing. Both steps are necessary and can be done using the same blood sample. If the first step is negative, no further testing is needed. If the first step is positive or indeterminate, the second step should be performed. The overall result is positive only when the first and second tests are both positive (CDC, 2019j).

Diagnostic points to remember
Health care professionals need to know the following:
- Most Lyme disease tests are designed to detect antibodies made by the body in response to infection.
- Antibodies can take several weeks to develop, so patients may test negative if the infection is recent.
- Antibodies generally remain in the blood for months or even years after the infection is resolved. Thus testing cannot be used to determine cure.
- Infection with other tickborne, viral, bacterial, or autoimmune diseases can result in false positive test results (CDC, 2019j).

Tick removal
Ticks should be removed as soon as possible. CDC recommends the following steps in tick removal:
1. Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
2. Pull upward with steady, even pressure. Do not twist or jerk the tick; this can cause the mouth parts to break off and remain in the skin. If this happens, remove the mouth parts with tweezers. If you are unable to remove the mouth easily with clean tweezers, leave it alone and let the skin heal.
3. After removing the tick, thoroughly clean the bite area and your hands with rubbing alcohol or soap and water.
4. Never crush a tick with your fingers. Dispose of a live tick by putting it in alcohol, placing it in a sealed bag/container, wrapping it tightly in tape, or flushing it down the toilet (CDC, 2019k).

Treatment
Treatment with appropriate antibiotics for two to four weeks in the early stages of Lyme disease usually results in rapid and complete recovery. Commonly used antibiotics in the treatment of Lyme disease are doxycycline, amoxicillin, and cefuroxime axetil. For those patients with neurologic or cardiac disorders, intravenous antibiotics such as penicillin or ceftriaxone may be administered (CDC, 2019l).

Post-treatment Lyme disease syndrome
Following treatment, some patients have symptoms of pain, fatigue, or trouble thinking that lasts for six months or longer. This condition is referred to as post-treatment Lyme disease syndrome (PTLDS) (CDC, 2019m).

The reason that some patients develop PTLDS is unknown. Some experts believe that the syndrome is the result of an autoimmune response, which causes symptoms that endure long after the infection itself is cured. Other experts believe that PTLDS occurs when patients have a persistent, but hard to detect, infection. Still others believe that symptoms of PTLDS are brought about by other causes that are unrelated to Lyme disease infection (CDC, 2019m).

There is no proven treatment for PTLDS. Short-term antibiotics are proven treatments for Lyme disease, but results from the National Institutes of Health studies have found that long-term outcomes are no better for patients who received additional long-term antibiotic treatment for Lyme disease than for patients who received a placebo. In fact, long-term antibiotic treatment has been associated with serious complications because of superimposed infections (CDC, 2019m).

Most patients with PTLDS recover over time, but it can take many months to feel completely well. Patients with long-term symptom should consult their health care providers about management (CDC, 2019m).

Nursing consideration: Lyme disease vaccine is no longer available. Its production was discontinued in 2002 because of insufficient consumer demand. Protection from vaccine diminishes over time, so those persons who were vaccinated before 2002 are probably no longer protected against Lyme disease (CDC, 2018b).

Prevention
The best way to prevent Lyme disease is to avoid being bitten by ticks. Advise patients when outdoors to protect themselves and their pets by from tick bites by taking these precautions:
- Wearing long sleeves and pants that are tightly woven and light in color when walking in wooded areas: Long sleeves and pants help to protect the skin. Light colors make ticks easier to see.
- Tucking shirts into pants and tucking pants into socks or shoes/boots.
- Walking in the center of trails in woods and avoiding walking through low bushes and long grass.
- Keeping dogs on a leash so they cannot be bitten or bring ticks home with them.
- Applying tick repellent with DEET to clothing, shoes, socks, and skin: Avoid using DEET on the hands of young children or on infants younger than 2 months of age. According to CDC, oil of lemon eucalyptus offers the same protection as DEET when used in similar concentrations and is a more natural product.
- Checking yourselves and families for ticks after outdoor activities.
- Shampooing your hair and showering if you think you have been exposed to ticks.
- Keeping your property clear of brush and leaves.
- Placing woodpiles in sunny areas (CDC, 2018c; CDC, 2019n).

Self-assessment quiz question #7

Marcia and her family love spending weekends at their cabin in the woods. It provides a perfect vacation spot for a family that loves to hike, picnic, and generally enjoys being outdoors. They spend Sunday hiking and picnicking and end the weekend with a campfire. A few weeks after the family returns home, Marcia develops what she thinks is the flu. She is tired and achy and develops a slight fever and chills. Marcia also notices several red papules with surrounding clear areas over her right ankle that resemble bullseyes, but she attributes them to mosquito bites. These symptoms subside, but Marcia cannot seem to get her energy back. About six weeks later, Marcia develops painful, swollen knee joints and has trouble concentrating. She schedules an appointment with her family doctor who diagnoses arthritis. As they talk, he learns of her frequent weekends at the cabin in the woods. The physician now begins to suspect that Marcia may have been bitten by a tick and infected by the bacteria that cause Lyme disease.

When assessing and treating Marcia, a health care provider would:
a. Prescribe long-term antibiotic therapy to prevent PTLDS.
b. Order additional testing after antibiotic therapy to determine cure.
c. Recommend that Marcia receive the Lyme disease vaccine.
d. Explain a two- to four-week course of antibiotic therapy is standard treatment.

Poison ivy, poison oak, and poison sumac

Tracey and her friends are avid gardeners. They spend a lot of time preparing for various garden club competitions. Tracey is confident that there is little chance of coming in contact with common poisonous plants in her meticulous garden. One evening, after a long day of gardening, Tracey absentmindedly scratches her arms, which are quite itchy. As she takes a closer look at her arms, Tracey notices her lower arms are covered with small bumps and hives, and there are red streaks on both arms. To her chagrin, Tracey realizes that she has probably come into contact with poison ivy.

Poison ivy, poison oak, and poison sumac are plants that commonly cause allergic contact dermatitis when they come into contact with a person's skin. Contact most commonly occurs in the spring, summer, and fall (HealthyChildren.org., n.d.; WebMD, 2019f).

Poison ivy is a three-leafed green weed with a red stem at its center. It is found in most parts of the continental United States except the deserts of the Southwest. Poison oak resembles poison ivy but is more shrub-like, with leaves that resemble oak leaves. It is found primarily in wet, swampy areas. Poison sumac is a shrub with 7 to 13 leaves arranged in pairs along a central stem and is found in very wet areas in the eastern United States. All three plants produce similar skin reactions, plant dermatitis, which is the most common skin problem caused by contact with plants (CDC, 2018d; HealthyChildren.org., n.d.; WebMD, 2019f).

Pathophysiology

Contact with these poisonous plants causes allergic contact dermatitis in most people. The rash is the result of contact with an oil, urushiol, found in all parts of these plants: leaves, stems, flowers, berries, and roots. Both direct and indirect contact with the plants causes this response. Examples of indirect contact include touching clothing, gardening tools, or other objects that have been in contact with the plants. Inhaling smoke from burning poisonous plants can irritate lungs and nasal passages (HealthyChildren.org., n.d.; Mayo Clinic, 2018e; WebMD, 2019f).

Not everyone who comes into contact with poisonous plants develops contact dermatitis. However, the immune systems of most people react to the oils such as urushiol in poisonous plants as though they were harmful pathogens. Contact with poisonous plants causes the body to react by developing a characteristic rash (HealthyChildren.org., n.d.; WebMD, 2019f).

The rash is not contagious and cannot be spread after it appears, even if it is touched or if the fluid from any blisters is touched, because urushiol has already been absorbed into or washed off the skin. Some people, and even some health care professionals, mistakenly believe that the rash is spreading because it appears later on different parts of the body. However, the rash appears only where the oil has come into contact with the skin. If the rash continues to develop after initial contact, it simply means that various areas of the body came into contact with the oil or that contact was made with objects that had oil on them. Objects that may have come in contact with the oil, such as gardening gloves and yard equipment, should be washed with a soapy, oil-removing cleaner separately from other clothing or materials to avoid re-exposure (CDC, 2018e; HealthyChildren.org, n.d.; WebMD, 2019f).

Signs and symptoms

The extent of the reaction to contact with poisonous plants depends on how sensitive the immune system is and a person's age and general state of health and wellness. There are usually no serious complications of this type of allergic dermatitis in healthy people (CDC, 2018f; HealthyChildren.org., n.d.; WebMD, 2019f).

However, in people who are highly allergic to urushiol, serious symptoms may develop, including swelling of the face, neck, genitals, or eyelids and widespread large blisters that ooze large amounts of fluid (HealthyChildren.org., n.d.; WebMD, 2019f).

Following are common symptoms of allergic contact dermatitis from poison ivy, oak, or sumac:

- Generalized redness or red streaks where the plant has brushed against the skin.
- Small bumps or hives.
- Fluid-filled blisters that may ooze: Occasionally, blisters may fill with blood, making them appear black.
- A rash that usually appears 8 to 48 hours after coming into contact with urushiol: But it can take up to 15 days for the rash to appear. The rash continues to develop in new areas over several days but only on the areas of the skin that have had contact with the oil (HealthyChildren.org., n.d.; Mayo Clinic, 2018e; WebMD, 2019f).

It is important to differentiate between the rashes caused by poison ivy, oak, or sumac and rashes caused by other plants or skin conditions. Here are some examples of problems that can mimic the effects of poison ivy, oak, or sumac:

- Other plants that contain urushiol or a similar oil such as the ginkgo tree can cause similar contact dermatitis.
- Irritant plants such a stinging nettle can also cause rashes. These types of rashes, however, are not allergic reactions.
- Scabies: A skin condition caused by mites.
- Shingles: A viral skin infection that causes a very painful rash.
- Impetigo: A bacterial infection of the skin (Mayo Clinic, 2018e; HealthyChildren.org., n.d.; WebMD, 2019f).

Diagnosis is made by history of contact with poison ivy, oak, or sumac and appearance of contact dermatitis (HealthyChildren.org., n.d.; Mayo Clinic, 2018e; WebMD, 2019f).

Treatment

Treatment can usually be performed at home and seldom requires medical intervention. Treatment focuses on relieving symptoms; there is no cure for the rash itself (HealthyChildren.org., n.d.; Mayo Clinic, 2018e; WebMD, 2019f).

Nurses can advise patients who have had contact with these types of poisonous plants on the following points:

- Immediately wash all areas of the skin that may have come into contact with the plants. Development of the rash may actually be prevented by washing affected areas within 10 to 15 minutes of contact.
- Clothing should be removed as soon as possible and immediately washed.
- Application of wet compresses or soaking affected areas in cool water may help to relived symptoms.
- Various medications may be used to help relieve symptoms. Over-the-counter oral antihistamines are helpful. For more severe rashes, oral, cream, ointment, or gel forms of corticosteroids may be used. Topical applications that contain anesthetics or antihistamines should be avoided because they can cause allergic skin eruptions.
- Barrier creams may also be used to reduce symptoms. These creams vary in strength and effectiveness (HealthyChildren.org., n.d.; Mayo Clinic, 2018e; WebMD, 2019f).

Nursing consideration: Infection of the rash is a fairly common occurrence. If the patient scratches the affected areas to the point where the skin is broken, infection is a definite possibility. Infection is generally treated with an antibiotic cream or oral antibiotics. Patients should be cautioned to avoid scratching the rash and to keep fingernails short to reduce the risks of damaging skin integrity (HealthyChildren.org., n.d.; Mayo Clinic, 2018e; WebMD, 2019f).

Prevention

It is important for everyone to learn to recognize these poisonous plants, which may vary in appearance depending on the season and the location in which they grow. Although contact is more common in spring, summer, and fall, these plants can cause allergic dermatitis at any time of year. Poisonous plants should be removed from yards and gardens whenever possible. These plants should be handled only with vinyl gloves. When outdoors in areas where these plants are commonly found, long pants, long sleeves, and enclosed footwear should be worn (HealthyChildren.org., n.d.; Mayo Clinic, 2018e; WebMD, 2019f).

Venomous snakebites

The majority of snakebites are relatively harmless and come from nonvenomous snakes. However, venomous snakebites are medical emergencies requiring swift treatment. Twenty-five species of venomous snakes are found in North America. In the United States, pit vipers and coral snakes are venomous. Pit vipers include rattlesnakes, cottonmouths, and copperheads. These snakes have a pitted depression between their eyes and nostrils and two fangs that are ¾ to 1¼ inches long. Fangs may break off or grow behind old ones. This means that some snakes may have from one to four fangs (Daley, 2018; Medline Plus, 2017c).

Coral snakes have distinctive red, black, and yellow bands. Yellow bands always border red ones. Coral snakes prefer dry, sandy conditions with a body of water nearby. They are found predominantly in the southern and southwestern states (Daley, 2018; MedlinePlus, 2019).

Nursing consideration: Nonvenomous king snakes have the same colors as the coral snakes but in a different order. A rhyme that helps to differentiate the venomous coral snake from nonvenomous king snakes is "red on yellow, kill a fellow; red on black, venom lack" (Daley, 2018). It is important to encourage patients and families to learn the differences between poisonous and nonpoisonous snakes. However, it is best for them to avoid snakes because it may not be possible to differentiate among snakes in a timely manner.

Pathophysiology, signs, and symptoms

Snake venom is produced and stored in paired glands below the eyes of the snakes. The snake releases venom from hollow fangs in the upper jaws. The amount of venom discharged with each bite depends on the time since the last bite, how threatened the snake feels, and the size of its victim (Daley, 2018).

Extent of damage from snakebite varies depending on the snake. For example, a bite from a copperhead is usually limited to local tissue destruction. Rattlesnakes, however, leave significant wounds and cause systemic toxicity. Coral snakes often leave a small wound that eventually leads to respiratory failure (Daley, 2018).

Pit viper venom is neurotoxic. Pit viper bites are painful, and the following symptoms appear rapidly:

- Anxiety.
- Blurred vision.
- Coma (possibly leading to death).
- Diarrhea.
- Difficulty speaking.
- Dizziness.
- Excessive sweating.
- Fainting.
- Hypotension.
- Impaired coagulation leading to bleeding gums, hematuria, hematemesis, and internal bleeding.
- Local and facial numbness and tingling.
- Lymphadenopathy.
- Nausea and vomiting.
- Pain at the bite site.
- Seizures (especially in children).
- Shock.
- Skeletal muscle twitching.
- Tachycardia.
- Thirst.
- Weakness (Daley, 2018; MedlinePlus, 2017c).

Coral snake venom is also neurotoxic, but it may take up to several hours for signs and symptoms to appear following a bite from this type of snake. This delay, plus the facts that the bite is painless at first and there is little evidence of local tissue reaction, may make people believe that the bite is nothing to worry about. However, coral snake bites can be as deadly as pit viper bites (Daley, 2018).

These are the signs and symptoms of coral snake bites:

- Blurred vision.
- Constricted pupils.
- Difficulty swallowing.
- Drowsiness.
- Loss of muscle coordination.
- Nausea and vomiting.
- Obvious salivation.
- Ptosis (drooping eyelids).
- Respiratory distress that could progress to respiratory failure.
- Shock (possibly progressing to cardiovascular collapse and death) (Daley, 2018; MedlinePlus, 2017c).

Treatment

Prompt first aid is essential to reduce venom absorption and prevent or reduce symptoms. Here are initial first aid interventions:

- Keep the patient as calm as possible and help them to lie as still as possible. Moving about and agitation only increases venom absorption.
- Call 911.
- Place the victim in a supine position. Immobilize and keep the affected area below the level of the heart to reduce venom flow.
- Try to identify the snake, but time should not be wasted looking for it because this can place the victim or others in danger as they look for the snake.
- Do not give the patient any food, beverages, or medication orally.
- Remove any rings or constricting clothing or other items because affected areas may swell.
- Do not give the patient alcoholic drinks or stimulants. These substances will speed venom absorption.
- Do not apply ice to a snake bite. This increases tissue damage (Durkin, 2013; Medscape, 2016c).

Prevention

When teaching patients and families how to prevent snakebites, it is important to give them the following advice:

- Avoid areas where snakes often hide such as under rocks and logs.
- Avoid picking up snakes even if you are sure they are not venomous.
- Never provoke a snake.
- Purchase a snake bite kit (available at some sporting goods stores) to take with you when hiking.
- When hiking, wear long pants and boots (Daley, 2018; MedlinePlus, 2017c).

Self-Assessment Quiz Question #8

Steve is spending the day at his girlfriend's lavish family home, complete with swimming pool and tennis courts. The house is in a secluded area surrounded by woods. At one point during the day, they venture away from the house for a stroll in the woods. They come across a brightly colored snake patterned with alternating bands of red, yellow, and black. In an attempt to impress his girlfriend, Steve begins to "play" with the snake, poking at it with a stick. She is horrified, warning Steve that the snake is venomous. Steve just laughs, and tells her that it's probably just a harmless king snake. Little does Steve know that this snake is actually a venomous coral snake and that he is in danger of being bitten.

If Steve is bitten by a venomous snake, his girlfriend and her family should take all of the following actions EXCEPT:

a. Place Steve in a supine position.
b. Offer Steve alcohol to keep him calm.
c. Try to identify the snake, but do not waste time looking for it.
d. Immobilize and keep the affected area below the level of the heart.

Spinal cord injury

The Miller family is having a large, boisterous family reunion. They have rented several cottages on the shore of a large lake. The entire family enjoys outdoor activities, especially on warm summer days. Family members spend the afternoon swimming and diving from nearby rocks into the water. Nick, an adventurous 17-year-old, climbs to the highest point of the rocky ledge and dives into the water. When he fails to surface, alarmed relatives search the water frantically. They reach him and pull him to shore. However, Nick is barely conscious and complains of not being able to move his legs. Nick has sustained a spinal cord injury.

Spinal cord injuries (SCI) affect about 17,000 people annually in the United States. CDC estimates that spinal cord injury costs the country about $9.7 billion every year (American Association of Neurological Surgeons [AANS], 2019). Motor vehicle accidents are the leading cause of SCI in younger persons, and falls are the leading cause for SCI for people over age 65. Acts of violence and sports and leisure activities are also common causes of such injuries (AANS, 2019). Although not limited to warm weather activities, the risk may arguably increase during the months of the year when more people are engaged in outdoor physical activity.

Because of the complexity of spinal cord injury, treatment, and rehabilitation, this education program focuses only on an introduction to the topic, including summaries of injuries at specific spinal cord levels, risk factors, and first aid treatment.

The severity of injury depends on the area of the spinal cord affected and whether the damage to the spinal cord is complete or incomplete. With a complete spinal cord injury, nearly all feeling (sensory) and the ability to voluntarily control movement (motor function) are lost below the level of the injury. An incomplete injury means that some motor or sensory function is retained below the level of injury. Incomplete injuries vary in severity and complexity (AANS, 2019; Mayo Clinic, 2019i).

Paralysis from a spinal cord injury may be referred to as tetraplegia or paraplegia. Tetraplegia (also referred to as quadriplegia) indicates that, to some extent, arms, legs, trunk, and pelvic organs are all affected by the injury, which mostly results from damage to the cervical vertebrae. Paraplegia means that all or portions of the legs, trunk, and pelvic organs are affected (AANS, 2019; Mayo Clinic, 2019i).

The extent of injury depends on the level of the spinal cord injured and whether the injury is complete or incomplete. For example, injuries above the C-4 level may require some form of mechanical ventilation. C-5 injuries often allow some shoulder and biceps control but no control of the wrist or hand. Injuries at the C-6 level allow for some wrist control but no hand function. Injuries at the C-7 and T-1 levels allow affected persons to straighten their arms, but there are dexterity problems with the hands and fingers (McKinley, 2019).

Paraplegia is caused by damage at the T-1 level and lower. If the injury affects levels T-1 to T-8, there is usually hand control but poor trunk control because of inadequate control of the abdominal muscles. Injuries at the T-9 to T-12 level typically allow good trunk control and good control of the abdominal muscles, and sitting balance is very good. Injuries of the lumbar and sacral vertebrae affect control of the hip flexors and legs (McKinley, 2019).

Risk factors

The following factors increase the risk of spinal cord injury:

- **Age**: People between the ages of 16 and 30 years most often experience spinal cord injuries.
- **Being male**: Approximately 80% of individuals with spinal cord injuries are male.
- **Risk-taking behavior**: Including diving into too shallow water, participating in sports without proper gear, behaving recklessly, driving recklessly, or participating in acts violence.
- **Bone or joint disorders**: If someone has a bone or joint disorder such as osteoporosis or arthritis, or other conditions that weaken the body, even a relatively minor injury can affect the spinal cord (AANS, 2019; Mayo Clinic, 2019i).

It is imperative that nurses and other health care professionals know how to react at the scene of a suspected spinal cord injury. A spinal cord injury should be suspected if the following is evident:

- There is evidence of head injury with alterations in levels of consciousness.
- The victim has severe pain in their neck or back.
- The victim is unable to move extremities or neck.
- The victim complains of weakness, numbness, or inability to move extremities or lacks control over extremities.
- The victim is unable to control their bowel or bladder.
- The victim's neck or back is oddly positioned (Mayo Clinic, 2019i).

Following are immediate first aid initiatives for someone with a suspected spinal cord injury:

- Call 911.
- Immobilize the patient as much as possible. Place heavy towels, blankets, or jackets on both sides of the neck, and hold the head and neck still.
- If needed, administer CPR, but do not tilt the head back to open the airway. Gently grasp the jaw and lift it forward.
- If the person is wearing a helmet, do not remove it.
- If the patient is vomiting, choking, or in other types of distress that makes it necessary to roll the patient to their side, two people are needed to safely accomplish this. One rescuer should remain at the head and the other along the side of the patient, and simultaneously they roll the patient to one side while maintaining head, neck, and back alignment (Mayo Clinic, 2019i).

Emergency medical personnel will immobilize the patient's head, neck, and back for transport to the hospital using a cervical mobilization device. On arrival at the hospital, in addition to maintaining breathing and circulation and spine immobilization, X rays, CT scans, and MRI are performed to determine the level of injury and to assess spinal cord damage. Patients may need to be sedated to help prevent movement that can exacerbate damage (AANS, 2019; Mayo Clinic, 2019i).

Nursing consideration: Patients are usually admitted to the intensive care unit for initial treatment. They may also be transferred to a spine injury center that has a team of experts in spinal cord injury for acute treatment and rehabilitation (AANS, 2019).

After the patient stabilizes, the rehabilitation team focuses on determining what physiological deficits exist because of the injury and assisting patients to achieve their maximal state of health and wellness. The rehabilitation process varies widely from patient to patient and depends on the level of injury and resulting deficits (AANS, 2019; Mayo Clinic, 2019i).

Spinal cord injury can and does affect all aspects of patients' lives. Mobility, bowel and bladder control, sexual health, and the ability to perform activities of daily living (bathing, dressing, toileting) may all be affected. Patients with incomplete injuries may experience severe nerve pain and muscle or joint pain from overuse of particular muscle groups, for example, using arms to propel a wheelchair. Patients and families must also be monitored and treated for depression as needed. Patients may also need vocational counseling if their injury impacts their ability to perform their job (AANS, 2019; Mayo Clinic, 2019i).

Sprains and strains

Sprains and strains are common injuries with similar signs and symptoms. Yet they affect different parts of the body. A sprain is a stretching or tearing of supporting ligaments that surround a joint. Sprains usually occur after a sharp twisting motion to the affected area. The most common location for a sprain is the ankle (Mayo Clinic, 2018f).

A muscle strain is an injury to a muscle or tendon

Minor injuries may only overstretch muscles or tendons, whereas a severe injury may involve partial or complete tears of muscles and tendons. Strains occur most often in the lower back and in the hamstring muscles (Mayo Clinic, 2019j).

Nursing consideration: The difference between a strain and a sprain is that "a strain involves injury to a muscle or to the band of tissue that attaches a muscle to a bone. A sprain injures the bands of tissue that connect two bones together" (Mayo Clinic, 2019j).

Signs and symptoms

A sprain causes local pain, especially during movement of the joint, swelling, bruising, limited ability to move the affected joint, and hearing or feeling a "pop" in the joint at the time of injury (Mayo Clinic, 2018f).

Signs and symptoms of a strain such as the following vary depending on the severity of the injury:

- Pain or tenderness.
- Bruising or redness.
- Reduced motion.
- Muscle spasms.
- Swelling.
- Muscle weakness (Mayo Clinic, 2019j).

Diagnosis

Diagnosis is made during a physical exam. Health care providers check for swelling and points of tenderness. X rays or ultrasounds help to rule out fractures or other types of bone injuries. MRI may be used to determine the extent of the injury (Mayo Clinic, 2018f).

Treatment

Treatment for sprains includes the following:

- Immediately elevate the joint above the level of the heart and apply ice for approximately 15 to 20 minutes every two to three hours. Do not place ice directly against the skin; place a towel between the ice pack and the skin.
- Support the affected joint with an elastic bandage. Avoid wrapping the affected area too tightly because this can interfere with circulation.
- Avoid activities that cause pain, swelling, or discomfort, but do not avoid all physical activity.
- Administer analgesics as needed. Over-the-counter products such as acetaminophen or ibuprofen can be helpful. Some health care providers recommend avoiding OTC medications such as aspirin that increase bleeding risk (Mayo Clinic, 2019j).
- Provide patient education regarding application of elastic bandage and weight-bearing activities (Mayo Clinic, 2018f).

Self-care of a muscle strain can be remembered by the acronym RICE:

- **Rest**: Avoid activities that cause pain, swelling, or discomfort, but do not avoid all physical activity.
- **Ice**: Ice the area immediately. Apply an ice pack for 15 to 20 minutes and repeat every two to three hours while patient is awake for the first few days after injury.
- **Compression**: Compress the area with an elastic bandage until swelling resolves. Avoid wrapping too tightly because this may interfere with circulation.
- **Elevation**: Elevate the injured area above the level of the heart, especially at night. This allows gravity to help reduce swelling (Mayo Clinic, 2019j) .

Self-assessment quiz question #9

Sprains and strains can occur indoors and outdoors at any time of year. However, most people are more active during warmer months and spend more time engaging in physical activity. Sprains and strains are common injuries, and nurses are often asked for treatment advice from neighbors, families, and friends. These injuries are seldom severe but need adequate first aid and treatment interventions.

A nurse practitioner is evaluating an injury her patient sustained while playing basketball. Which of the following statements about sprains and strains is correct?

a. A muscle strain is an injury to a muscle or a tendon.
b. Sprains and strains have distinct symptoms.
c. Heat should be applied for 15 to 20 minutes every two to three hours.
d. Compression should be avoided because this will increase swelling.

Sunburn

Meredith is determined to acquire a golden tan this year. All of her friends seem to be beautifully tanned before the summer even arrives. Meredith decides to spend every free minute she has in the sun. She even applies baby oil to her skin to attract the sun's rays. Meredith succeeds in attracting the sun, but not in the way she had hoped. She acquires several sunburns, each one more severe than the last. The last sunburn was so severe that Meredith had to see a nurse practitioner for help. In addition to treatment, Meredith receives education about the dangers of sunburns and risk for skin cancer.

Despite the warning about the dangers of sun exposure, many people still subject themselves to ultraviolet light. The light produced by sun lamps, tanning beds, and other sources of tanning is just as dangerous as sun exposure (Medline Plus, 2019d).

More than 33% of adults and almost 70% of children report that they have had a sunburn within the past year (WebMD, 2018c).

Risk factors for sunburn include the following:

- **Young age**: Infants and children are particularly sensitive to the effects of the sun.
- **Fair skin**: People with fair skin are especially sensitive to the sun's ray, although all people can and do become sunburned. A fair-skinned person may sustain a sunburn in less than 15 minutes when exposed to the midday sun during the summer months.
- **Certain medications**: Certain medications, including the antibiotic doxycycline, cause people to be more susceptible to sunburn.
- **Strength of sun**: The sun's rays are strongest between 10 a.m. and 4 p.m. They are also stronger at higher altitudes and altitudes closer to the tropics. Reflection off water, sand, or snow can increase the intensity of the sun's rays. People should limit sun exposure during all of these conditions (Medline Plus, 2019d).

Sunburn occurs when the amount of exposure to the sun or other forms of ultraviolet light sources exceeds the ability of the body's protective pigment, melanin, to protect the skin (Medline Plus, 2019d).

The signs and symptoms of sunburn are usually temporary, generally reddened skin that is warm and tender to touch (Medline Plus, 2019d; WebMD, 2018c). Pain is usually at its worst between 6 and 48 hours after the burn. Blisters may take hours or even days to develop, and are followed by skin peeling from the sunburned areas that occurs several days after the sunburn.

Persons with these signs and symptoms generally have sunburns that can be treated at home without difficulty. However, a health care provider should be notified immediately if the following signs and symptoms develop:

- Fever.
- Faintness.
- Dizziness.
- Tachycardia.
- Rapid breathing.
- Pale, clammy, cool skin.
- Nausea, chills, or rash.
- Severe, painful blisters.
- Dry mouth, thirst, and decreased urination (Medline Plus, 2019d).

Treatment for sunburn is mainly supportive and focuses on reducing the symptoms by the following means:

- Applying cold compresses or taking a cool bath to soothe the skin.
- Applying, gently, cream that contains menthol, camphor, or aloe. Refrigerate the cream before application, as this will help to soothe the skin. Avoid products that contain benzocaine, lidocaine, or petroleum such as Vaseline. Do not apply creams to blisters.
- Administering nonsteroidal, anti-inflammatory drugs, including ibuprofen or naproxen, to relieve swelling and pain. Aspirin, or drugs containing aspirin, should not be given to children.
- Drinking plenty of water and other fluids to avoid dehydration.
- Staying out of the sun until the sunburn is healed.
- Wearing loose clothing so the skin is not irritated any further.
- Applying dry bandages to blisters to help reduce the chance of infection (Medline Plus, 2019d; WebMD, 2018c).

Patient education regarding sunburn should include information about risk factors. There is no such thing as a healthy tan. Unprotected exposure to the sun causes the skin to age prematurely. Skin cancer, usually appearing in adulthood, is often caused by sun exposure and sunburns that start in childhood (Medline Plus, 2019d).

Education should also be provided about how to prevent sunburn. The simplest way to prevent sunburn is to stay out of the sun. Realistically, however, people are going to have to deal with sun exposure of some type and duration, and total avoidance of all sunlight is not recommended, as it can result in vitamin D deficiency, osteomalacia, or seasonal depression (Dawson-Hughes, 2019).

Here are some education tips to prevent sunburn:

- Avoid exposure to the sun during its peak intensity.
- Apply sunscreen with a sun protection factor (SPF) of at least 30. Be sure to apply plenty of sunscreen to the face, nose, ears, and shoulders. Note that the higher the SPF, the greater the protection. Reapply sunscreen after swimming and every 1½ to 2 hours while out of doors.
- Wear a broad-brimmed hat when outdoors.
- Wear sunglasses with ultraviolet light protection.
- Use a lip balm that contains sunscreen.
- Use sunscreen even on cloudy days. The sun's rays can penetrate clouds (Medline Plus, 2019d; WebMD, 2018c).

West Nile virus (encephalitis)

Nile encephalitis, more commonly known as West Nile virus (WNV), is an infectious disease that causes an inflammation of the brain. The virus is the leading cause of mosquitoborne disease in the continental United States. West Nile virus is not transmitted by touching, kissing, or other casual contact between human beings. There have been a few documented cases of the virus being transmitted through organ transplant and blood transfusion. Blood donors are now screened for the virus, thus significantly reducing the risk of infection (CDC, 2019l; Mayo Clinic, 2019k).

Most people infected with West Nile virus do not develop symptoms. About one in five people develop a fever and problems such as body aches and pains. About 1 out of 150 infected people develop a serious, sometimes fatal, illness (Mayo Clinic, 2019k).

Signs and symptoms

Symptoms vary depending on the severity of infection. For milder forms of infection, the following symptoms may occur:

- Back pain.
- Body aches.
- Fatigue.
- Fever.
- Headache.
- Skin rash, lymphadenopathy, and eye pain (occasionally) (CDC, 2018f; Mayo Clinic, 2019k).

Fewer than 1% of infected individuals develop a serious infection that causes encephalitis (brain inflammation) or meningoencephalitis (inflammation of the brain and surrounding membranes). Infection may also result in spinal cord inflammation and acute flaccid paralysis (Mayo Clinic, 2019k).

These are signs and symptoms of this more serious infection:

- Confusion and disorientation.
- Convulsions.
- Coordination problems.
- High fever.
- Pain.
- Partial paralysis.
- Severe headache.
- Stiff neck.
- Stupor or coma.
- Tremors (CDC, 2018f; Mayo Clinic, 2019k).

The signs and symptoms of the milder infection usually last for a few days. However, signs and symptoms of encephalitis or meningitis can last for weeks, and some of the neurological effects may be permanent (Mayo Clinic, 2019k).

Diagnosis and treatment

Diagnosis is accomplished by testing serum or cerebrospinal fluid (CSF) to detect West Nile virus-specific IgM antibodies. Antibodies are usually detectable 3 to 8 days after illness onset and can persist for 30 to 90 days or longer (CDC, 2018f).

There is no specific treatment for infection with West Nile virus and no known cure. Most infected individuals recover without treatment. Over-the-counter analgesics reduce minor aches and pains (CDC, 2018f; Mayo Clinic, 2019k).

For individuals who have serious infections, treatment is aimed at controlling specific symptoms. Intravenous fluids may be administered and measures taken to provide fever control or respiratory support as needed (CDC, 2018f; Mayo Clinic, 2019k).

There is no vaccine available for West Nile virus infection. Clinical research trials are now underway to assess the effectiveness of ribavirin, an antiviral drug, as a treatment mechanism. Interferon therapy, a form of immune cell therapy, is also under investigation as a treatment initiative (CDC, 2018f; Mayo Clinic, 2019k).

Prevention

The best way to prevent infection with West Nile virus is to avoid exposure to mosquitoes and to eliminate sites where mosquitoes breed, along with following measures:

- Avoiding being outdoors when mosquitoes are most prevalent—at dawn, dusk, and in the early evening.
- Wearing long-sleeved shirts and long pants when in areas where mosquitoes are prevalent.
- Applying mosquito repellent containing an EPA-registered insect repellent to skin and clothing. Mosquito repellents should not be applied to children younger than 3 years of age.
- Eliminating standing water in yards.
- Emptying unused swimming pools.
- Unclogging the gutters of roofs.
- Removing any old tires or unused containers that might hold water and serve as breeding sites for mosquitoes.
- Changing water in birdbaths at least weekly (CDC, 2018f; Mayo Clinic, 2019k).

Self-assessment quiz question #10

John is a landscape gardener and works long hours outdoors, often into dusk. He is often bitten by mosquitoes. For the last day or two, John has been suffering from a fever, headache, and body aches. He assumes that he has come down with the flu. However, within a few more days, his fever becomes dangerously high and he has a stiff neck and headache. John's wife insists that he see a doctor, who fears that John may be one of the less than 1% of people who have developed a serious infection from the West Nile virus.

Based on his symptoms, what treatment will John receive?

a. Intravenous fluids.
b. No treatment is available.
c. Antibiotic therapy.
d. Vaccine.

Summary of seasonal weather-related health issues and intent to change practice

The preceding discussions of weather-related health issues are not all-inclusive, and many of them can occur at other times of the year. However, it is important for nurses and other health care professionals to be aware of problems that most often occur during warm weather months and how to deal with them.

Nurses should use the information presented in this program to enhance knowledge and skills in the recognition of, and intervention for, seasonal weather-related health issues.

Many seasonal health-related issues can be dealt with at home without the need for professional health care intervention. Perhaps that is why it is so crucial for nurses to recognize when the usually minor problems become a significant threat to health and wellness. Although treatment initiatives are critical, prevention is equally important. Many of these problems—including sunburn, avoidance of risky behaviors, and exposure to poisonous plants—are relatively easy to prevent. Prevention is linked to the effectiveness of patient education. Health care professionals must ask themselves why more people are not taking steps to avoid seasonal weather-related issues. Most people know, for example, that excessive exposure to the sun is dangerous. Yet, as soon as warm weather arrives, college campuses and other outdoor sites are filled with young people searching for ways to acquire a tan. People still pursue outdoor activities in wooded areas in shorts and tank tops rather than long pants and long sleeves.

What can be done to make patient education regarding the prevention of weather-related problems more effective? Health care professionals cannot rely on providing such education exclusively in the confines of hospitals and outpatient settings, which is not practical or realistic. Another option is to use modern technology to provide education in short bursts. Text messages, Facebook pages, and other social media can all be effective tools to provide education. Advertisements on television, radio, and other means of media communication can also be used. People are accustomed to receiving information in short, easy-to-access ways. Why not make health care information part of the technology boom?

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COMMON OUTDOOR-RELATED ISSUES

Self-Assessment Answers and Rationales

1. The correct answer is C.
Rationale: Experts in winter survival caution that when stranded in a motor vehicle during a snowstorm, people should stay inside their vehicle. Jay's brother is the more appropriately dressed of the two because he has dressed in layers. Neither boy payed attention to the weather forecast despite its potential for danger. Cell phones can be life-saving! In this type of situation, both phones should be fully charged and used only for emergency communication.

2. The correct answer is B.
Rationale: Deep (severe) frostbite symptoms include losing sensation in the affected area and the development of a white or bluish-gray skin.

3. The correct answer is B.
Rationale: Light therapy has been a mainstay of treatment for many years. It is believed that light therapy causes changes in brain chemicals that are associated with mood.

4. The correct answer is A.
Rationale: Grace's description of her brother's reaction to a bee sting is that of a minor reaction. Treatment is supportive and consists of washing the affected area with soap and water and applying cold compresses to relieve pain and swelling.

5. The correct answer is D.
Rationale: Activities that simulate the brain should be avoided in order to allow the brain to rest. Such activities include playing video games, watching television, and reading.

6. The correct answer is B.
Rationale: Resuscitation should be initiated even if the patient has been in the water for a long time because survival is possible even after long periods. Research has shown that prognosis is better if the water is cold rather than warm. Every effort should be made to stabilize the spine and to find out if Jason has any health issues that could impact treatment efforts.

7. The correct answer is D.
Rationale: A two- to four-week course of antibiotic therapy is the typical treatment. Long-term antibiotic therapy is not recommended. Cure cannot be determined after treatment by testing because antibodies can remain in the blood for months and even years. A vaccine is no longer available.

8. The correct answer is B.
Rationale: Alcohol or stimulants should be avoided because they speed up venom absorption.

9. The correct answer is A.
Rationale: A muscle strain is an injury to muscle or tendon; a sprain is an injury to ligaments. Their symptoms are quite similar. Ice, not heat, is used in management, and compression is recommended.

10. The correct answer is A.
Rationale: For severe symptoms, intravenous fluids may be administered and fever control is initiated.

Cultural Humility for Healthcare Professionals

3 Contact Hours

Release Date: October 27, 2021

Expiration Date: October 27, 2024

Faculty

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

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

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

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

Course overview

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

Learning objectives

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

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

How to receive credit

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

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Activity director

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

Disclosures

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Course verification

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DEFINITION OF CULTURAL HUMILITY

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

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

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

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

Self-Assessment Quiz Question #1

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

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

DIMENSIONS OF DIVERSITY IN THE UNITED STATES

Definitions

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

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

Each individual has a multitude of diverse identities; some are visible and some are not readily identifiable. Each of the identities intersects with the other identities. The multiple intersections can serve to provide for further oppression and marginalization or further power and privilege, and/or they could mitigate one another, providing some facets of privilege and others of oppression. For example, an African American college professor who is a heterosexual woman with a

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

Race, ethnicity, and immigration

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

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

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

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

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

Demographics

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

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

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

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

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

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

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

Table 2: Population by Race Self-Identification 2018

Race	Number of People	Percentage
White	236,102,692	72.2%
Black or African American	41,683,829	12.7%
Asian	18,449,856	5.6%
Some Other Race	16,273,008	5%
Two or More Races	11,224,731	3.4%
Native American Indian and Alaska Native	2,826,336	0.9%
Native Hawaiian and other Pacific Islander	606,987	0.2%

(Pew Research Center, 2020a)

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

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

Self-Assessment Quiz Question #2

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

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

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

Poverty

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

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

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

- Between 2019 and 2020, the poverty rate increased for non-Hispanic Whites and Hispanics. Among non-Hispanic Whites, 8.2% were in poverty in 2020, while Hispanics had a poverty rate of 17.0%. Among the major racial groups examined in this report, Blacks had the highest poverty rate (19.5%) but did not experience a significant change from 2019. The poverty rate for Asians (8.1%) in 2020 was not statistically different from 2019.
- Poverty rates for people under the age of 18 increased from 14.4% in 2019 to 16.1% in 2020. Poverty rates also increased for people aged 18 to 64 from 9.4% in 2019 to 10.4% in 2020. The poverty rate for people aged 65 and older was 9.0% in 2020, not statistically different from 2019.
- Between 2019 and 2020, poverty rates increased for married-couple families and families with a female householder. The poverty rate for married-couple families increased from 4.0% in 2019 to 4.7% in 2020. For families with a female householder, the poverty rate increased from 22.2% to 23.4%. The poverty rate for families with a male householder was 11.4% in 2020, not statistically different from 2019.

Income data from this report include the following information (U.S. Census Bureau, 2020):

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

Women in Poverty

More women than men are living in poverty in the US. Men who have migrated for employment or to avoid conscripted military work often have left women behind. Migrating across hundreds of miles and difficult terrain is not feasible for women and children. Basic information about women in poverty includes the following (Bleiweis et al., 2020):

- Of the 38.1 million people living in poverty in 2018, 56%, or 21.4 million, were women.
- Nearly 10 million women live in deep poverty defined as falling below 50% of the federal poverty line.
- The highest rates of poverty are experienced by Native American Indian or Alaska Native (AIAN) women, Black women, and Latinas. About one in four AIAN women live in poverty. This is the highest rate of poverty among women or men of any racial or ethnic group.

- Unmarried mothers have higher rates of poverty then married women, with or without children, and unmarried women without children. Nearly 25% of unmarried mothers live below the poverty line.
- In 2018, 11.9 million children under the age of 18 lived in poverty. This accounts for 31.1% of those living in poverty.
- Poverty rates for women and men are almost even throughout childhood. However, the gap grows significantly for women ages 18 to 44 (during prime childbearing years) and again for women age 75 and older.
- Women with disabilities are more likely to live in poverty than both men with disabilities and persons without disabilities. Women with disabilities have a poverty rate of 22.9%, compared to 17.9% for men with disabilities and 11.4% for women without disabilities.
- LGBTQ women experience higher rates of poverty than cisgender (sense of personal identity and gender correspond with their birth sex) straight women and men because of the intersections of discrimination based on gender, sexual orientation, and gender identity or expression.

Reasons why women live in poverty

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

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

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

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

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

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

Self-Assessment Quiz Question #3

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

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

Disability

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

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

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

Table 5: Percentage of Adults with Functional Disability Types in the US

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

The CDC (2020) points out that:
- Two in five adults age 65 years of age and older have a disability.
- One in four women have a disability.
- Two in five non-Hispanic, Native American Indians/Alaska Natives have a disability.

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

People with disabilities face several barriers to accessing healthcare. These include the following (CDC, 2020):
- One in three persons does not have a primary healthcare provider. (Age group: 18-44 years.)
- One in three people has an unmet healthcare need because of cost in the past year. (Age group: 18-44 years.)
- One in four people did not have a routine check-up in the past year. (Age group: 45-64 years.)

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

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

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

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

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

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

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

Self-Assessment Quiz Question #4

All the following statements are accurate EXCEPT:

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

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

OPPRESSION, PRIVILEGE, AND MARGINALIZATION

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

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

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

Self-Assessment Quiz Question #5

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

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

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

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

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

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

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

Self-Assessment Quiz Question #6

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

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

PROVIDING PATIENT CARE WITH CULTURAL HUMILITY

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

Attending to diversity

Critical Thinking Exercise

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

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

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

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

Self-reflection and self-critique

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

professional's life, and the interactions between healthcare professional and patient.

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

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

Respectful partnerships

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

Healthcare professionals often attempt to take the emphasis off race, class, gender, and other areas of difference by denying the effect these aspects of diversity have on patients (e.g., "The only race I know is the human race"), or by trying to show that they understand the patient's experience because they, too, are a member of an oppressed group. For example, the African American patient may not feel that the healthcare professional, as a bisexual Jewish woman, understands subtle racial insults from personal experiences. Some healthcare professionals imply that because they personally do not discriminate against oppressed groups, no personal or societal problems exist associated with race, class, LGBTQ status, or disability; this attitude negates the experience the patients may have in the larger society, where they experience various degrees of marginalization based on their intersecting identities (Minarik, 2017).

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

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

Self-Assessment Quiz Question #7

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

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

Lifelong learning

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

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

White identity

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

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

Self-Assessment Quiz Question #8

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

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

Assessment and treatment

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

The following example from Wyatt (n.d.) illuminates some key elements of providing patient care with cultural humility. An interracial couple, an African American father and a White mother, come into therapy because their child was kicked out of school for fighting and the father was called into child protective services for spanking his child. When they entered the office, the father was very angry and the mother was getting extremely upset, trying to calm him down. The White therapist suggested meeting with the father alone first. When he met with the father, rather than trying to silence his rage, he joined with him by stating, "It sounds like you're furious with the situation that's happened; you're tired of it." The father was able to calm down at that point, as the White therapist was allowing him to be angry in his presence and was acknowledging that there might be a reason for anger. The therapist then asked the father if his disciplining method had anything to do with wanting to protect his child. The father responded that, yes, he was afraid his child, "a Black kid," was at risk of going to prison if he was fighting at school. The father did not want that for his child and was frightened. By providing room for the father to express his rage and his fear, the therapist was able to make the clinical session more meaningful.

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

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

Table 6: Multicultural Perspectives in Providing Healthcare

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

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

Self-Assessment Quiz Question #9

Multicultural perspectives in providing healthcare include all the following EXCEPT:

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

Healthcare professional roles

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

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

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

Further, critical self-reflection in the context of cultural humility includes analysis of power differentials and how those differentials may play out on both individual and institutional levels (Fisher-Borne et al., 2015). Practicing with cultural humility suggests that healthcare

professionals go beyond the confines of their offices to address differences in power and privilege that affect patients in very tangible ways.

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

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

Institutional and societal accountable: Social justice

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

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

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

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

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

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

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

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

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

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

Self-Assessment Quiz Question #10

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

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

DIFFERENCES BETWEEN MULTICULTURAL COMPETENCY AND CULTURAL HUMILITY

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

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

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

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

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

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

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

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

Case study: James Choi

James Choi is a 25-year-old Korean American, a new college graduate who recently accepted a job as a fund-raiser at the Humane Society. He was adopted when he was 8 months old into a middle-class White family. He seeks therapy because he feels that he is not achieving as much as he would like with his career. James is feeling anxious and has some symptoms of depression. His family physician has prescribed an antidepressant and encourages James to participate in mental health therapy. He is seeing Denise, a clinical psychologist who works in a large mental health counseling practice. Denise is a 30-year-old White woman. She is a recent graduate who has learned a bit about Asian American culture in her graduate coursework. On James's first visit, Denise asks him what brings him to counseling. James explains that he is disappointed in himself for not achieving more in his career. He explains that he has been feeling anxious and depressed and identifies the antidepressant that he is taking. Denise nods in understanding and remembers that Asian American families often have high academic standards and family members have a difficult time seeking therapy, concerned about losing face. As a result, Denise compliments James

on being brave enough to seek therapy. James seems confused by Denise's response but manages to say thank you. James then proceeds to tell Denise that his parents encouraged him to seek therapy, as they thought that he was showing signs of depression. Denise is surprised that an Asian family would encourage their son to seek counseling but knows that she may have been stereotyping based on his ethnicity. Denise continues with the questions, as she does want to know more about his feelings regarding not achieving as much as he would like in his career as well as his symptoms of anxiety and depression. She asks James why he is feeling that he is not achieving as much as he should be. James shrugs and says he thought he would be at a higher position after completing college. Denise knows that Asian Americans often expect high achievement from their children, so she asks James how his parents feel about his success thus far. James surprises her again when he says his parents are extremely proud of him and think he has landed a great first job. Denise is baffled and asks James to share more about his disappointment given his parents' support and his success at both graduating from college and getting a job so quickly. She remembers again to be careful not to stereotype. When the session concludes, she asks James to schedule another session so they can explore his concerns further. James says he will on his way out and thanks Denise for her help. Yet, he never returns to counseling.

Questions

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

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

Case study: Linda Rogers

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

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

When Linda returns to counseling several weeks later, she again admits to not following through on Janine's suggestions. She is still stressed. Janine is frustrated at the lack of progress but continues to try to help Linda with her stress through offering a variety of self-care options. Linda continues to agree to try a variety of techniques and agrees to continue to meet, but with little enthusiasm.

Questions

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

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

Conclusion

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

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

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Self-Assessment Answers and Rationales

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

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

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

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

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

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

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

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

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

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

Course Code: ANCCNJ03CH

Emerging Infectious Diseases

6 Contact Hours

Release Date: March 3, 2021

Expiration Date: March 3, 2024

Faculty

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

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

Content Reviewer: Dianne L. Haas, PhD, RN, currently serves as full-time faculty as the FNP program coordinator ais a tenured professional with over 45 years of experience in healthcare, serving in clinical, administrative, public health, educational, research, and consulting roles. Her passion, experience, and education provide her with a strong background in the provision of high-quality client consulting and advisement services. Relevant to this review, she has been a member of several Pharmacy and Therapeutics and Infection Control Committees in both Pediatric and Adult hospitals and has administered hospital-based infection control programs. She was a first lieutenant with the National Disaster Medical System, National Nurse Response Team, USDHHS, from 2001-2006. This body is charged with responding to national health crises such as pandemics. She is a current member of the Michigan Medical Care Advisory Council, whose members serve as policy advisors to the state's Medicaid Director and program staff, who are currently responding to the coronavirus pandemic.

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

Course overview

Nurses in many practice settings are likely to encounter patients that are using dietary supplements – some appropriately – whereas in other instances, not. This course is designed to provide an overview of these products that will empower nurses to guide their usage safely and effectively. Dietary supplements of many types are widely used by Americans. As a result, it is likely that nurses, in a variety of settings, will encounter patients who use these products.

This educational program is designed to provide an overview of the following:

- The regulation of nutritional supplements.
- Main categories of nutritional supplements, their potential activity, and safety concerns.
- Resources available to provide additional information.

Learning objectives

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

- Provide two historic examples of a global pandemic.
- Describe a potential consequence of antimicrobial resistance.
- Explain how R0 can change over the course of an epidemic.
- Detail a scenario that could permit an outbreak of a previously eradicated ID in the United States.
- Identify one reason why some people refuse to vaccinate themselves and/or their children.
- Understand the relationship between a pandemic and the human need to assign blame.
- Name three components of hygiene efforts useful to counter the spread of ID.
- Acknowledge the role of public health agencies in the management of contagious ID.
- Identify two elements needed to support effective contact tracing efforts.
- Explain two practices that nurses can teach their patients that are effective in reducing the spread of contagious diseases.

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

Elite, 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, New Mexico, South Carolina, or West Virginia, your successful completion results will be automatically reported for you.

Accreditations and approvals

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

Individual state nursing approvals

In addition to states that accept ANCC, Elite is an approved provider of continuing education in nursing by: Alabama, Provider #ABNP1418 (valid through February 5, 2025); 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 #15020) valid through December 31, 2021; District of Columbia Board of Nursing, Provider # 50-4007; Florida Board of Nursing, Provider #50-4007; Georgia Board of Nursing, Provider #50-4007; and Kentucky Board of Nursing, Provider #7-0076 (valid through December 31, 2023). This CE program satisfies the Massachusetts Board's regulatory requirements as defined in 244 CMR 5.00: Continuing Education.

Activity director

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

Disclosures

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

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Course verification

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

INTRODUCTION

The world's struggle with the novel coronavirus has brought the term *Emerging Infectious Disease* into everyday use in scientific and clinical vernacular. While the use of this terminology has only recently become more common, the phenomenon of EID has likely plagued humans for many centuries. Over the past several years, though, the occurrence of EID seems to have greatly accelerated, becoming an existential threat to humankind. The changes leading to an increased incidence of EID are likely multi-faceted, with linkages to modifications in land use, enhanced intercontinental travel, climate change, and antimicrobial resistance. Whatever the reason, EID pose significant challenges for public health and science. While the impact of some EID may be blunted by immunization programs, antimicrobial therapeutics, and active immunity, it can be anticipated that, in many cases, EID will overwhelm global public health systems.

While the COVID-19 pandemic was the most important global EID at the time that this program was developed, the focus of this educational program is EID agnostic. Nonetheless, because of the massive scale of the current crisis, thousands of examples related to COVID-19 are available that work well to illustrate the general concepts of EID.

Infectious disease

Microorganisms, such as parasites, bacteria, viruses, and fungi, live inside, on, and around animal and human bodies. While many are harmless and, in some cases, even helpful, others are pathogenic and can cause ID. Some ID are not easily transmissible between animals and people, while others can be quite contagious. In some cases, infectious microorganisms are spread by insects or other animals (vectors), while at other times, transmission is via environmental exposure or by consumption of contaminated food or water. Manifestations of ID are variable, depending on a variety of factors, perhaps most importantly, the organism causing the infection. Despite symptomatic diversity, ID are often associated with fever and fatigue. Additional symptoms may include diarrhea, arthralgia, and coughing. While mild infections may respond well to rest and home remedies, others may be life-threatening and require urgent medical attention. Many historically devastating ID, such as measles, can be prevented by timely immunizations. In addition, many other ID can be prevented by employing thorough sanitation practices, such as handwashing and cloth face masks. While anyone exposed to a virulent pathogen can contract an ID (Mayo Clinic, 2019), there are risk factors that may increase the odds of illness through immunosuppression resulting from the following (Mayo Clinic, 2019):

- The use of medications or therapies such as chemotherapy, chronic use of corticosteroids, or post-transplant anti-rejection medications.
- Human Immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS).
- Cancer or disorders impacting the immune system.
- Other medical conditions, such as malnutrition and advanced age.

Some ID are associated with long-term risks of contracting cancer and other disease states. For example, the human papillomavirus has been linked to an increased risk of cervical cancer; Helicobacter pylori is a known cause of peptic ulcer and stomach cancer; while both hepatitis B and C are associated with liver carcinoma. Furthermore, a number of pathogens can cause disease and then go dormant, only to reappear later in life. An example of this is varicella zoster virus (VZV), which can initially cause chicken pox, and then present itself decades later as shingles (Mayo Clinic, 2019).

In order for an infection to occur, a pathogen must enter the body, replicate to a critical mass, and then cause a reaction (Centers for Disease Control and Prevention [CDC], 2017). In order for this to occur, three elements are required:

1. A source where the infectious agent can exist, for example, human skin or household surfaces.
2. Susceptible person, that is, a person with an accessible entry point.
3. Transmission route – a way that the pathogen can access the susceptible person (CDC, 2017).

It is critical to note that pathogens do not move themselves; rather, they depend on help from people or the environment (CDC, 2017). There are a few general ways that infectious agents can be transmitted, such as the following:

- Contact (touching). As an example, a person's hands become infected by contact with a high-touch area and then spread, if proper hygiene (handwashing) is not performed before coming into contact with a susceptible person.
- Sprays and splashes are often associated with coughs and sneezes from an infected person. In this case, droplets are created carrying germs that are able to travel short distances (thought to be approximately 6 feet) before deposition on a susceptible person's eyes, nose, or mouth. Pertussis and meningitis are known to be transmitted in this way (CDC, 2017).

Nursing consideration: Nurses need to teach their patients how to properly cover their mouth and nose while sneezing. Patients should either cough or sneeze into their shirt sleeve at the elbow or use a tissue. If a tissue is used, it should be disposed of immediately after use. No matter the technique, individuals should be taught to wash their hands with soap and water (or hand sanitizer, as appropriate) as soon as possible after coughing or sneezing.

- Inhalation of aerosolized pathogenic material. Unlike sprays and splashes from coughs and sneezes, when aerosolized, infectious agents can survive and be carried long distances (relative to the range of particles carried by coughs and sneezes) by air currents to reach a susceptible person. If conditions allow, aerosolization can result when infected patients cough, talk, or sneeze. As examples, tuberculosis and measles are known to be transmitted this way. Additionally, aerosolization can be caused by some types of medical equipment or can be contained within dust emanating from construction. Such examples include aspergillus and some mycobacteria (CDC, 2017).

Evidence-based practice! Traditional hypotheses about the transmission of airborne ID have largely focused on the roles of coughing and sneezing – dramatic examples of expiration sometimes resulting in visible droplets, as well as copious amounts of particles too small to be visualized. Nevertheless, it has been acknowledged that normal speech is also capable of generating invisible particles that are still able to ferry a variety of contagious respiratory pathogens. Asadi and colleagues conducted a series of experiments designed to link the amplitude (loudness) of speech with the rate of particle emission. Results obtained from this work showed that the number of particles increased from an average of one particle per second at low amplitudes to 50 at high speech amplitudes. Of significant importance were the individuals that they identified as "speech superemitters," who consistently released particles in an order of magnitude greater than their peers. This phenomenon could not be completely explained by either specific speech structures or amplitude. Asadi and colleagues suggested that there must be unknown physiologic factors that vary considerably between individuals. In conclusion, they hypothesized that these findings may help explain the existence of "superspreaders," who are disproportionately responsible for airborne ID outbreaks (Asadi et al., 2019).

- Injuries such as those incurred by accidental needlesticks may lead to certain infections such as HIV and hepatitis B or C (CDC, 2017).
- Animal to person transmission can occur if a human is bitten or scratched by an infected animal, to include pets. In addition, disease can be transmitted via animal waste (cat litter boxes have been associated with toxoplasmosis infection).
- Mother to child – in some cases, pregnant women may pass certain pathogens through the placenta or breast milk. Also, vaginal germs can infect a baby during birth.
- A variety of infectious agents rely on insect vectors such as mosquitos, fleas, lice, or ticks. Examples include the malaria parasite carried by mosquitos and Lyme disease carried by deer ticks.
- Food or water contamination can facilitate the transmission of disease-carrying agents between people. A common example of this is Escherichia coli (E. coli), a bacterium sometimes present in undercooked ground meat or unpasteurized fruit juice (Mayo Clinic, 2019).

Emerging infections disease

The term "emerging infections" was defined in a 1992 report published by the Institute of Medicine as "new, reemerging, or drug-resistant infections whose incidence in humans has increased within the past two decades or whose incidence threatens to increase in the near future" (Watkins, 2018, p. 86). In addition to providing this definition, the report identified the following six factors contributing to EID (Watkins, 2018):

1. Changes in human demographics and behavior.
2. Technology advances and modifications of industry practice.
3. Changes in land-use patterns and economic development.
4. Significant changes in the amount and speed of international travel and commerce.
5. Microbial evolution (including resistance to antimicrobial agents).
6. A disruption in public health capacity.

Furthermore, such infections are often linked to agents that, while previously identified, have come to be associated with novel disease states (Baylor College of Medicine [BCM], 2020).

A majority of EID discovered to date are of animal origin, with that trend projected to continue. Another commonality is the type of pathogen: most are viral. EID are often costly, both in terms of human life and economically. As a result of the devastation wrought by EID, the World Health Organization (WHO) has prioritized a number of pathogens as requiring urgent research and development in an effort to curb severe outbreaks. While some of these diseases have already been manifested, others have a high likelihood of causing future outbreaks (Watkins, 2018).

In 2007, WHO warned that the emergence of ID is occurring at a rate never seen in previous history. Since the 1970s, at least 40 novel ID have been discovered, to include: severe acute respiratory syndrome (SARS), Middle East Respiratory Syndrome (MERS), Ebola, chikungunya, avian flu, swine flu, Zika, and, recently, a new coronavirus associated with COVID-19. Although many of these diseases resulted from the factors described previously by Watkins, the potential also exists for diseases to emerge as a result of intentional introduction of pathogens to human, animal, or plant populations as bioterrorism agents. Examples of such pathogens include anthrax, smallpox, and tularemia (BCM, 2020).

Endemic

When a disease is typically present in a community at baseline exposure frequencies, it is termed endemic. It is critical to note that, although incidences of disease may exist in the background, this is not to say that this is always at a desired level. If adequate interventions are not taken and the incidence is not so high as to exhaust all susceptible people, the disease will continue to spread indefinitely. In this scenario, the baseline level of disease may come to be expected in that population. The rarity of a disease in a population may govern its treatment. For example, a single case of a relatively rare ID, such as rabies, may warrant an epidemiologic investigation in an effort to control further spread. In other cases of more common pathologies (for example, malaria, in some parts of the world), investigations may be triggered when the frequency of disease occurs outside the norm. While the term endemic is used to describe the constant and usual presence of a disease, at least two other terms are sometimes used to further describe endemic conditions. *Sporadic* diseases are those that occur with infrequency and irregularity. *Hyperendemic* diseases occur persistently and with sometimes relatively high levels of incidence (CDC, n.d.).

Epidemic

If an unexpected increase in the incidence of a disease in a specific geographic area occurs, this may signal the beginning of an epidemic, which is defined as a rise in cases beyond baseline levels in a defined geographic area. Epidemics can occur because of a variety of causes, to include the following:

- When an infectious agent rapidly becomes more common in an area where it already existed (endemically).

- A pathogen spreads through a region that was previously naïve to that agent.
- When human susceptibility somehow changes, allowing people to become sickened by agents that they previously tolerated.

(Joy, 2020)

The term epidemic has been present for some time, with possibly the first reference occurring in Homer's Odyssey, where it appeared to be used similarly to how the word endemic is now used (Joy, 2020). The first occurrence of the word epidemic being used in a way similar to its contemporary meaning was in 430 BCE by Hippocrates in his writings, Epidemics, which is a collection of clinical observations that would go on to form the underpinnings of modern medicine (Martin & Martin-Granel, 2006).

Pandemic

The word pandemic stems from a construct formed from the Greek words *pan*, meaning all, linked to *demos*, which refers to the population, thus forming the contraction pandemos, referring to all of the people (Shiel, n.d.).

When a novel infectious agent emerges, the majority of people lack immunity to counter the resultant ID. If conditions permit, this susceptibility may result in a rapid spread of disease between people, sometimes covering major swaths of the population. The spread of a viral pandemic can be characterized by the following six distinct phases (Lockett, 2020):

- Phase 1 – viruses are transmitted within animal populations. Since they have not been shown to enter humans, these pathogens are not considered a threat.
- Phase 2 – a new virus appears in animals that is shown to be transmissible to humans. As a result, this presentation may signal the potential risk of an epidemic or pandemic.
- Phase 3 – Initial clusters of human disease crop up as a result of animal-to-human transmission. Nonetheless, at this point, the rate of transmission is too low to result in significant community outbreaks. Although humans are considered to be at risk, the occurrence of a pandemic is unlikely.
- Phase 4 – The rate of human-to-human transmission accelerates to the point that community outbreaks are documented. This escalation marks the presence of a high risk of pandemic development.
- Phase 5 – When there is transmission of the virus to at least two countries, a global pandemic is considered to now be inevitable.
- Phase 6 – If a virus has spread to at least three countries, a global pandemic is officially present.

(Lockett, 2020)

History

Although not well documented, history suggests that communicable diseases have been present for thousands of years – at least as far back as the so-called hunter-gather days of possibly two million years ago. A major change in the way people lived occurred approximately 10,000 years ago, as a shift to more agrarian lifestyles took hold. During this era, communities were created. These increases in population density facilitated the occurrence of transmissible disease, to include malaria, tuberculosis, leprosy, influenza, and smallpox. The civilization of humans was coupled with the building of larger cities, increased trade, and war between other peoples. These interactions fueled the likelihood of pandemics (History.com, 2020). Some key examples of ID have emerged over time.

Great plague of Athens, 430 BCE

The first written account of a pandemic was rooted in 430 BCE Athens, in conjunction with the Peloponnesian War. Thucydides, an exiled Athenian general, was responsible for documenting the disease from a firsthand perspective. The malady was suspected, but not confirmed, to be typhoid fever, manifesting as fever, thirst, bloody throat and tongue, red skin, and lesions. It significantly weakened the Athenian army and likely contributed to their defeat at the hands of the Spartans. Although the Spartans had laid siege to Athens, the disease managed to spread beyond the walls of the city, ultimately impacting Libya, Ethiopia, and Egypt. Thucydides estimated that as much as two-thirds of the affected population ultimately died as a result of the disease. It was apparent that overcrowding in Athens, associated with inadequate housing and sanitation allowed the disease to rapidly spread and contributed to its lethality. Thucydides, himself, fell victim to the plague, but was able to recover. Perhaps, it was because of his own experience that he was able to understand fear and self-interest as it related to the disease, how it drove individual motivations and the subsequent fate of Greece. Through this lens, he recognized the practical and moral weaknesses that the disease was able to exploit. In addition to observations of inadequate infrastructure, Thucydides also criticized personal principles, noting that morally weak individuals, when they become afraid, regressed to lawlessness and sacrilege: "For the violence of the calamity was such that men, not knowing where to turn, grew reckless of all law, human and divine" (Kelaidis, 2020).

Antonine plague, 165 CE

This early manifestation of smallpox apparently was initiated within a population of Huns, who infected the Germans, who shared it with the attacking Roman army. Upon return to Rome, troops quickly spread it throughout the Roman Empire. Infected people suffered fever, chills, dyspepsia, and diarrhea that evolved from red to black in a week's time. Victims reportedly developed black pocks over their entire bodies, both inside and out. In those that survived, these sores then scabbed over, leaving disfiguring scars. In many cases, the suffering continued for 2 to 3 weeks. Of the approximately 75 million people residing in the Roman Empire, it is reported that 10% died. So shaken by this insult to their people, the town of Hierapolis erected a statue to the god, Apollo Alexikakos, the Averter of Evil, to protect their people from the disease as it spread throughout the Empire (Watts, 2020). The Antonine plague persisted until about 180 CE, even claiming the life of Emperor Marcus Aurelius (History.com, 2020).

Leprosy

Leprosy, sometimes called Hansen's disease, is caused by infection with the bacterium *Mycobacterium leprae*. Leprosy, if diagnosed and treated early, is a curable disease, allowing the afflicted to work and lead a normal life. If untreated, it can impact nerves, skin, eyes, and nasal mucosa, resulting in paralysis and blindness. Historically, leprosy was feared as both highly contagious and devastating (CDC, 2017a).

In medieval times, the disabling consequences of leprosy were apparent throughout England, afflicting both rich and poor, in rural areas as well as in cities. By 1050, leprosy was considered to be a regular consequence of life. In its most extreme form, it could cause the loss of fingers and toes. It is crucial to note the complicated reaction that people had to the disease. Because some saw it as punishment for sinful behavior, being afflicted could result in various moral judgements or ostracization. Alternatively, others saw it as akin to the suffering endured by Christ. In this light, leprosy was considered to be purgatory on earth, providing a direct conduit to heaven upon death. Sufferers of leprosy, in some circles, were considered to be closer to God than others (HistoricEngland.org, 2020).

Black Death, 1350 CE

The term Black Death was given to a deadly plague associated with the bacterium *Yersinia pestis*, which ran rampant in Europe during the 14th Century. It is thought that it originated in Asia, arriving in Europe in late 1348. Up until recently, it was understood that *Y. pestis* was transmitted to humans through bites from rats. Nonetheless, forensic archaeology work conducted in 2014 generated evidence concluding that the infection relied on airborne routes of transmission (coughs and sneezes), with the reasoning that this was the only mechanism that could have been responsible for such a rapid spread. Initial evidence of contracting the plague included lumps in the groin or armpit regions. In due course, black spots appeared on the body. Many of the afflicted died within 3 days of exhibiting symptoms, with few people recovering. At the time, existing medical knowledge was no match for the plague, which killed six of every 10 Londoners by the spring of 1349. Remnants of the Black Death recurred six more times by the end of the century (Trueman, 2015).

It appears likely that people's ignorance of contagious diseases at the time contributed greatly to the plague's ability to infect and kill so many people. Perhaps if they were more knowledgeable, they might have avoided close contact with others, especially when ill, and may have made better efforts to cover their mouth and nose when sneezing

or coughing. Instead, the lack of information resulted in people trying most anything to escape the disease. One extreme example was the case of the so-called *flagellants*. Adherents to this philosophy whipped themselves in hopes that God might forgive them of their sins, and thus spare them of the Black Death (Trueman, 2015).

The Columbian exchange, 1492

The Columbian exchange was a term used to describe massive transfers between the Old and New world. This process, marked by the arrival of Christopher Columbus to America in 1492, continues to this day. While many people may think of this colonization as mainly impacting plants, animals, and culture, all manners of life were sent in both directions across the Atlantic and, subsequently, to all corners of the world. One historian, Alfred Crosby, noted that European colonization of the New World depended not so much on guns, steel, and brutality, but more on the lifeforms that accompanied the early colonists. Some of the most critical were microbes that decimated the native peoples. For example, it is estimated that European small pox ultimately killed one-half of the indigenous American population, with the initial outbreak recorded in 1520-1521. In addition to the fatal efficacy of the virus, those that survived were weakened, and thus more susceptible to the diseases that followed, to include measles, bubonic plague, influenza, and typhus (History of Science in Latin America and the Caribbean [HOSLAC], n.d.).

Fiji Measles Epidemic, 1875

In October 1874, the chief of Fiji made an official state visit to Australia. Unfortunately, cases of measles had just started occurring in Sydney. The entire Fijian delegation caught the disease. The Australians provided attentive care, with most recovering by the time they returned home in January 1875. Nonetheless, the virus was not eradicated. Within a week, residents of the island began to be struck down by a disease that they could not understand. Despite the assurances of British administrators, some Fijians grew suspicious, believing that they were victims of sorcery. There was a widely held belief that the British had taken their chief to Australia with the intention of poisoning him. People became increasingly hostile and refused all conventional treatments for measles, leaving their immune systems alone to battle this serious illness. In the end, this measles outbreak was the worst disaster in the history of Fiji, resulting in the death of one-third of the island's population of 150,000. The British government scapegoated the ship's doctor and captain for not placing their passengers in quarantine upon their return to Fiji (Devestatingdisasters.com, n.d.).

Spanish Flu, 1918

The most severe pandemic to impact the world in the recent past was the influenza pandemic of 1918, sometimes called the Spanish Flu. It is thought that the virus infected approximately 500 million people globally, resulting in the death of over 50 million. In the United States (US), it is estimated that one-fourth of the total population was afflicted by the virus that killed approximately 675,000 Americans. In the US, the pandemic was thought to have decreased the average life expectancy by 12 years. At that time there was no vaccine available to prevent influenza. Instead, people were encouraged to exercise good sanitation, isolate, and quarantine as appropriate and strictly limit their social interactions (National Archives, 2020).

Zika Virus, 1952

Zika virus is a flavivirus transmitted by infected mosquitos. Initially identified in Ugandan monkeys in 1947, the first known transmission to humans occurred in 1952. Since that time, outbreaks of Zika have been noted in Africa, the Americas, and the Pacific. During the 1960s to 1980s, outbreaks were rare and sporadic, typically associated with mild illness. Larger outbreaks occurred in countries and territories of the Pacific beginning in 2013. In 2015, a major outbreak was reported in Brazil. During this outbreak, Zika was associated with Guillain-Barré syndrome and the incidence of microcephaly of children born to infected mothers. Outbreaks accelerated after this time. To date, infections have been reported in 86 countries and territories. Symptoms usually occur within 3 to 14 days of infection. In most individuals, the disease is mild and asymptomatic. In those that exhibit symptoms, the most common signs are mild and include fever, rash, conjunctivitis, muscle and joint pain, malaise, and headache, usually lasting 2 to 7 days.

Ebola Virus Disease (EVD), 1976

EVD can result from infection with a variety of viruses within the genus ebolavirus. The first observation of Ebola was near the Ebola River, in what is now the Democratic Republic of Congo. Since that time, viral outbreaks have occurred sporadically in a number of African countries. Although not with certainty, it is thought that the most likely source of Ebola was either bats or nonhuman primates. The initial spread to humans was likely through direct contact with infected blood, body fluids, or tissues of animals. The virus then could easily spread to other people through contact with body fluids of other people who are sick with or have died from EVD. Viral entry is typically through broken skin, mucous membranes, or by sexual contact. The appearance of symptoms can occur anytime between 2 to 21 days after exposure to the virus. Usually, initial symptoms include fever, aches and pains, and fatigue, progressing to diarrhea and vomiting as the patient becomes sicker. Those that survive Ebola infections may experience lingering symptoms such as tiredness, muscle aches, eye and vision problems, and stomach pain (CDC, 2019).

HIV/AIDS, 1981

Although the virus causing AIDS had likely been present for some time, it was first characterized in 1981. AIDS is not, in itself, fatal. Rather, left untreated, it destroys a person's immune system (largely t-cells), leaving them vulnerable to a variety of diseases that the body could normally fight off. After infection by HIV, people generally experience fever, headache, and enlarged lymph nodes. After a time, these symptoms may subside, leaving those afflicted infectious to others. While AIDS was initially seen primarily in gay American communities, it is thought that it originally stemmed from a west African chimpanzee virus in the 1920s, moving through Haiti in the 1960s and arriving in New York and San Francisco in the 1970s. Although a variety of therapeutics have been developed that effectively slow the progression of disease, no cure or vaccine has been found. To date, over 35 million people worldwide have died of AIDS since its discovery in 1981 (History.com, 2020).

Severe Acute Respiratory Syndrome (SARS), 2003

SARS is a viral respiratory illness caused by a coronavirus called SARS-associated coronavirus (SARS-CoV). Initial reports of SARS occurred in Asia in early 2003. The sickness spread to more than 25 countries in the Americas, Europe, and Asia before the pandemic could be contained (CDC, 2013). Generally, SARS is initially associated with flu-like symptoms, to include fever, chills, muscle aches, headache, and occasionally diarrhea. Approximately a week later, most people suffering from SARS will have a fever of at least 100.5ºF, dry cough, and shortness of breath (Mayo Clinic, 2019). At this time, there are no known actively transmitted cases of SARS anywhere in the world. In 2004, human infection linked to laboratory-acquired infections in China were reported (CDC, 2013).

Severe Acute Respiratory Syndrome Coronavirus 2 (COVID-19), 2019

The term coronavirus is used to describe a family of viruses that have the potential to cause illness, ranging from the common cold to deadly diseases such as SARS. In 2019, a novel coronavirus identified as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) first appeared in China. Infection with SARS-CoV-2 results in the disease COVID-19. Although some people with COVID-19 will remain asymptomatic throughout the course of disease, others may experience serious and even fatal outcomes. The most common signs and symptoms associated with COVID-19 appear within 2 to 14 days of exposure and may include fever, cough, and fatigue. In many cases, infected individuals may experience a loss of taste and/or smell. Other symptoms include a shortness of breath, arthralgia, chills, sore throat, rhinitis, headache, chest pain, and conjunctivitis. The severity of symptoms runs the gamut, ranging from very mild to severe. It appears that older individuals may be at a heightened risk of severe COVID-19. Additionally, it is evident that certain comorbidities, including heart disease, diabetes, obesity, pulmonary disease, and immunodeficiency put individuals in a higher risk category. In March 2020, WHO declared that the COVID-19 outbreak was a pandemic (Mayo Clinic, 2020).

While the world is awaiting the broad availability of a vaccine to prevent COVID-19, there are well-acknowledged steps that can be taken to reduce the risk of infection. Key concepts include avoiding close contact with other people; frequent handwashing; prodigious

use of face coverings; covering of mouth and nose when coughing or sneezing; avoidance of touching eyes, mouth, and nose; frequent cleaning and disinfecting of high-touch surfaces; and staying home when sick (Mayo Clinic, 2020).

History of EID: A summary

From the 430 BCE Plague of Athens to our present struggle with COVID-19, it is uncanny, despite the passage of nearly 2,500 years and great advances in medicine, how many aspects remain the same:

- Vaccines and therapeutics are often not available in time to stop a fast-spreading pandemic.
- Failure to maintain adequate distance from people allows microbial transmission.
- Contagion is often linked to poor sanitation.
- Stigma and misinformation are able to enhance the spread of disease.

Efforts to manage EID

The concept of *emerging infectious diseases* has been discussed in a variety of scientific publications since at least the early 1960s. It required a major outbreak of genital herpes, followed by the emergence of HIV/AIDS in the 1970s and early 1980s, to raise awareness and concern of EID, making the term widespread. A number of subsequent landmark events and publications aroused interest in the subject, deepening the funding channels, permitting increased levels of research and publication of seminal articles. This is not to say that previous to this, clinicians were ignorant to the potential harms of EID. As an example, in 1888, the Institut Pasteur (IP) opened in Paris as one of the original centers dedicated to supporting research to prevent, diagnose, and control outbreaks of EID. A number of laboratories were established to study the epidemiology of pathologies such as malaria and sleeping sickness. Such efforts led to the development of early vaccines intended to counter smallpox, rabies, and the plague. Meanwhile, the mission of the IP expanded, forming a close alliance with WHO and establishing centers in nine African countries. Currently, the IP remains a major player, entwined in almost every EID outbreak (Ndow, 2019).

In response to the heavy toll that yellow fever was inflicting on the US Military, the Yellow Fever Commission was formed in 1900 to evaluate the cause and transmission of yellow fever. This effort was initially led in Cuba by Major Walter Reed. In its initial year of existence, the commission confirmed that yellow fever was communicated via mosquito bites. This was proven by deliberately infecting 30 men with mosquito bites. The commission then initiated control programs in Cuba revolving around enhanced sanitation, fumigation with insecticides, and endeavoring to eliminate standing water to prevent breeding. Their efforts were rewarded with a dramatic decrease in the incidence of yellow fever. These control programs were implemented just in time to preserve the Panama Canal project. Early in the project, it was estimated that approximately 85% of canal workers required hospitalization as a result of contracting malaria or yellow fever, resulting in the death of tens of thousands. President Theodore Roosevelt funded an effort to keep the construction progressing. A total of 4,000 workers traveled to Panama and spent a year working to prevent mosquitos from laying their eggs. To this end, they employed fumigation and spread oil on standing water. These efforts were effective, with the last victim of yellow fever in the Panama Canal zone succumbing to disease in 1906. By the end of World War II, most parts of the world had adopted dichlorodiphenyltrichloroethane (DDT) as its weapon of choice to eradicate mosquitos, and thus control yellow fever. Shortly thereafter, a vaccine for yellow fever was developed that ultimately provided lifetime immunity for 99% of people who were immunized. In the past 30 years, limited clusters of yellow fever have emerged in Africa and South America (National Public Radio [NPR], 2019).

The Medical Research Council (MRC) laboratory in Gambia was formed in 1947 when a World War II British Army hospital was handed over to the United Kingdom (UK) based MRC. This institution is, and always has been, funded by the UK government and is their largest investment in medical research based in a developing country. With a keen focus on ID threatening Gambia and the greater continent of Africa, its objective was to reduce the burden of death, both there and in all of the developing world. The laboratory made significant contributions toward the prevention of pathologies to include malaria, tuberculosis, and *Haemophilus influenza*. To this day, it remains deeply engaged in research focused on ID, conducted at the bench as well as in clinical trials. Its reputation is excellent and it is thus able to attract international funding and the recruitment of superior investigators (Perform, 2020).

In the timeframe spanning the 1950s to 1970s, a number of African nations created and supported research centers throughout the continent designed to improve health and quality of life. Examples include the South African Medical Research Centre (SAMRC), Kenya Medical Research Institute (KEMRI), the National Research Centre (NRC) of Egypt, the National Institute for Medical Research (NIMR) in Tanzania, the Medical Research Council of Zimbabwe (MRCZ), and the Medical Research Council of Nigeria. Many of these organizations conducted research intended to characterize the transmission of EID in ways designed to better understand the evolution of antimicrobial resistance and best inform procedures to counter disease outbreaks (Ndow, 2019).

The National Center for Emerging and Zoonotic Infectious Diseases, a component of the US CDC, is tasked with protecting people from health threats, both global and domestic (CDC, 2017b). Some of their areas of interest include the following:

- Waterborne and foodborne disease.
- Hospital- and institution-based infections.
- Antimicrobial-resistant infections.
- Fatal diseases such as Ebola, anthrax, and COVID-19.
- Illnesses that tend to impact travelers, immigrants, and refugees.
- Diseases resulting from contact with animals.
- Diseases that spread by fleas, mosquitos, and ticks.

WHO endeavors to provide an integrated global alert and response system for epidemics and other public health emergencies by partnering with national health systems, resulting in a coordinated and effective response. WHO identifies their core functions as the following (WHO, 2020c):

- Supporting their member states in a way to implement national capacities for epidemic preparedness and response, to include laboratory capacity, early warning alerts, and response schemes.
- Support of training for epidemic (to include influenza) preparedness and response.
- Generate standardized schemes supporting readiness and response to known epidemic diseases, such as meningitis, plague, and yellow fever.
- Reinforce biosafety, biosecurity, and readiness for outbreaks of dangerous and emerging pathogenic outbreaks, such as SARS, COVID-19, and viral hemorrhagic fevers.
- Maintain global operational platforms to support outbreak response.

Current status of EID

As of October 24, 2020, the CDC (2020c) reported a total of 12 US-based ID related outbreaks:

- Salmonella infections from pet bearded dragons (October 2020).
- Salmonella infections from wood ear mushrooms (September 2020).
- Salmonella infections from pet hedgehogs (September 2020).
- Salmonella infections from peaches (August 2020).
- Salmonella infections from onions (August 2020).
- Salmonella infections from backyard poultry (May 2020).
- COVID-19 (January 2020).
- Multidrug-resistant Campylobacter infections from pet store puppies (December 2019).
- Lung injury associated with vaping (August 2019).
- Drug-resistant Brucella infections from raw milk (February 2019).
- Measles (January 2019).
- Hepatitis A among people who are homeless and use drugs (March, 2017).

It is evident that while the US faces a variety of perils, the greatest current challenge is that of managing COVID-19. In addition, the CDC (2020a) reported an outbreak of Ebolavirus in the Democratic Republic of the Congo beginning in May 2018. WHO more broadly focuses across all global outbreaks and is currently monitoring a much more extensive portfolio of ID. As of October 24, 2020, the WHO (2020b) list of pandemic and epidemic diseases included the following:

- Chikungunya.
- Cholera.
- Crimean-Congo haemorrhagic fever.
- Ebola virus disease.
- Hendra virus infection.
- Influenza (pandemic, seasonal zoonotic).
- Lassa fever.
- Marburg virus disease.
- Meningitis.
- MERS-CoV.
- Monkeypox.
- Nipah virus infection.
- Novel coronavirus (2019-nCoV).
- Plague.
- Rift Valley fever.
- SARS.
- Smallpox.
- Tularaemia.
- Yellow fever.
- Zika virus disease

Drivers of EID

In the last 60 years, the emergence of ID has occurred at an increased rate. In many cases, outbreaks seem to appear without warning, complicating public and animal health as diseases spread across regions. In order to best manage this evolving threat, it is critical to understand the driving force of these phenomena. When the basis of disease is characterized, it may be possible to develop solid measures designed to prevent and mitigate their spread. As long as EID are able to run rampant across the world, health security and sustainable development will remain in jeopardy (Machalaba & Karesh, 2017).

Climate Change

Human's relentless drive to expand their global footprint is a major factor in driving the risk of EID. Population expansion linked to environmental impacts are acknowledged as linkages to some outbreaks of ID (Machalaba & Karesh, 2017).

When ID appear in new hosts and/or in new regions, the cause of climate change must be considered. With climate change now nearly universally acknowledged, the emergence of novel ID can be expected. Changes in climate drive shifts in habitats, putting wildlife, crops, and humans into contact with pathogens that they have never been exposed to, and are thus typically susceptible. One example was recorded in Costa Rica. In this case, humans hunted capuchin and spider monkeys to the point of extinction in some regions of the country. With no host, native lungworm parasites moved to howler monkeys that, because of changes in climate, occupied a broader habitat, beginning a new path of migration. Over time, by hitchhiking on a variety of hosts inhabiting increasing ranges, lungworms have moved as far north as the arctic, ultimately taking up residence in Canadian caribou and muskoxen. For over 100 years, scientists did not believe that parasites could jump so rapidly between species. This has recently been proven otherwise with pathogens shifting to new hosts relatively quickly, given the right circumstances. To make matters worse, in many cases, the new hosts, which have not yet developed resistance, are often extremely susceptible to illness and get much sicker than the previous host. In cases where resistance to the pathogen does develop, the acute disease simply becomes a chronic problem. This is illustrated by West Nile Virus. Although West Nile is no longer an acute issue for animals or people in North America, it is well established and is here to stay (University of Nebraska-Lincoln, 2015).

One potential approach to at least partially countering the impact of climate change on EID is to enhance the level of interaction between the public, veterinary health communities, and the biologists that study and classify evolving life forms. While the treatment of human cases of ID and development of vaccines to protect against them is needed, these fundamental approaches usually come too late. A more proactive approach would increase the study of pathogens carried by nonhuman reservoirs and predict which ones are likely to make the jump to humans and/or domesticated animals. If scientists could develop increased knowledge focused on the geographic distribution and behavior of nonhuman reservoirs of pathogens, better public health strategies could be developed to reduce the risk of spreading infections. While it is unlikely that pathogens can be eradicated from host species, human awareness of infected animals could lead to reduced contact and thus decrease the incidence of resultant ID (University of Nebraska-Lincoln, 2015).

Evidence-based practice! Parasites typically can exist within broader temperature ranges than their hosts. This is thought to occur because the smaller parasitic organisms can acclimate more readily because of higher metabolic rates. When there is a thermal mismatch, for example, a host organism is present in an environment at the higher edge of what they can tolerate, they may be more susceptible to parasitic infestation. Cohen tested the thermal mismatch hypothesis by measuring the temperature-dependent susceptibility of amphibian species to the fungal pathogen Batrachochytrium dendrobatidis. To this end, they assessed a total of 15,410 animals in 598 distinct populations. Their results showed that the greatest susceptibility of cold- and warm-adapted hosts occurred at relatively warm and cool temperatures, respectively. Investigators suggest that as climate change occurs, hosts find themselves out of their optimum environments, and thus more susceptible to parasitic infestation. These efforts help associate disease outbreaks with the extreme weather shifts common to climate change (Cohen et al., 2017).

Antimicrobial Resistance (AMR)

AMR asserts itself when bacteria, viruses, fungi, and parasites evolve to the point where they are no longer sensitive to medications previously able to counter them. AMR can then result in making infections more difficult to treat, thus permitting them to spread more easily. AMR happens naturally, typically as a result of genetic changes. AMR can occur in humans, animals, food, plants, and the environment. AMR pathogens can spread from persontoperson or between people and animals. Although there are a variety of causes of AMR, the largest drivers are the misuse and overuse of antimicrobial medications, poor sanitation, a lack of clean water, inadequate knowledge, and poor enforcement of guidelines designed to prevent it (WHO, 2020a).

Case Study 1

Melissa is a 14-year-old girl who has been brought to her Advanced Practice Nurse (APN), Laura, because she has been complaining of a sore throat, fever, and body aches. Although she does not feel especially unwell, she is concerned because she has a history test later that week and does not want to miss it. Her mother suggests that Laura prescribe a course of azithromycin because she is confident that this will help Melissa get better more quickly. While Laura considered the idea of offering an antibiotic, she was aware of a recent surge of viral infections in the community presenting similarly to Melissa's. Based on this, Laura was leaning toward a diagnosis of viral pharyngitis. Based on her experience, there was not likely to be an effective treatment, so she suggested that her mother provide supportive care to address Melissa's symptoms. Melissa's mother was persistent though and had come to expect the provision of antibiotics whenever she or her family pursued medical care for a variety of complaints, to include fever, sore throat, and even diarrhea. Laura, fairly confident that Melissa was suffering from a viral infection, strongly suspected that antibiotics would serve no purpose. Even worse, she was aware that indiscriminate antibiotic usage could contribute to antibiotic resistance. Instead, Laura took the time to help Melissa's mother understand the difference between bacterial and viral infections and the potential harm that can result from inappropriate antibiotic usage. Laura's patience and persistence appeared to be a good investment of time – before long, Melissa's mom was nodding in appreciation of Laura's words. After Laura ensured that they had no further questions, Melissa and her mother left for the pharmacy to stock up on ibuprofen and orange juice.

Self-Assessment Quiz Question #1

Regarding antimicrobial resistance (AMR), which of the following statements is *false*?

a. Antimicrobial resistance can render antibiotics ineffective against some previously susceptible microorganisms.
b. In many cases, AMR facilitates the treatment of bacterial infections.
c. AMR pathogens can sometimes spread between people.
d. A major driver of AMR is the misuse of antibiotic products.

According to the U.S. Agency for International Development (USAID), AMR and zoonotic rooted diseases account for 95% of all EID recorded in the second half of the 20th century. Examples include tuberculosis, HIV, and malaria. It is estimated that 700,000 people die annually as a result of AMR variants of these three diseases. USAID projects that, unless something is done to curb the escalation of AMR frequency, drug-resistant infections are on course to kill 10 million people per year by 2050 (USAID, 2019).

Nursing consideration: Unfortunately, the inappropriate use of antibiotics in the treatment of viral disease is common. In fact, many patients have come to expect a prescription to be issued when they visit their clinician for treatment of an illness, even in cases of viral-based sicknesses. Nurses have a critical responsibility to explain the difference between viral and bacterial disease, and work to dissuade both these patients and their prescribers to avoid using antibiotics in these instances, in an effort to combat the development of antibiotic-resistant bacteria.

R_0

R_0 (pronounced R naught) is a mathematical construct that describes the contagiousness of an ID. A synonym for R_0 is reproduction number. Both terms characterize the reproduction of an infection, providing insights into how it spreads. R_0 indicates the average number of people who will contract an infection from a single contagious person. This scenario is qualified by the population being totally susceptible, i.e., not immune to it, either through previous infection, vaccination, or otherwise protected. These conditions would allow for uncontrolled spread of a virulent pathogen. As an example, if a certain disease carries an R_0 of 12, it can be expected that, in a vulnerable population, 12 additional people will ultimately be infected. R0 values, then, demonstrate that every disease has the following three spreading scenarios (Ramirez, 2016):

1. In cases where R_0 is less than one, each infection will result in less than one afflicted person. In this case, the incidence of disease will fade and eventually disappear.
2. When R_0 equals one, each infected person will cause one additional person to become ill. In this situation, the disease will remain stable, but an outbreak or epidemic is not expected. This is aligned with endemic conditions.
3. If R_0 is greater than one, each infection will result in more than one new infection. The disease will spread, potentially leading to epidemic conditions (Ramirez, 2016).

Fortunately, the conditions needed to support an ID with an R_0 greater than one are relatively uncommon because of advances in public health and medicine. Many deadly, contagious ID of the past have been largely contained (Ramirez, 2016).

To put things in perspective, the R_0 of the influenza virus of the 1918 Spanish Flu was estimated to range from 1.4 to 2.8, while the swine flu of 2009 was likely 1.4 to 1.6 (Ramirez, 2016).

In the midst of the coronavirus pandemic, one of the most commonly argued issues is that of its R_0. Both the media and public opinion remain focused on this epidemiological metric and its relationship to spreading potential. In some cases, R_0 has even been defined as the "fatal number": the higher it goes, the greater the mortality. Early on in the COVID-19 pandemic, at the time it was declared by WHO, that organization assigned an R_0 ranging from 1.4 to 2.5. This degree of infectivity is, however, controversial. As of February 2020, the literature contained references to R_0 ranging from 1.5 to 6.7, with average values reported of 3.28. If, indeed, this R_0 was accurate, the coronavirus would exceed the reproductive potential of SARS. The diversity in estimating R_0 is likely driven by discordant assumptions and modeling approaches. It is critical to understand that R_0 is not an intrinsic value of the pathogen, rather it is calculated based on at least the following three variables, all of which may vary between the studies designed to estimate R_0 (Viceconte & Petrosillo, 2020):

1. Duration of contagiousness.
2. Likelihood of infection per contact.
3. Economic, social, and environmental factors of the recipient population.

These differences are compounded by the use of different modeling approaches used to estimate R_0. Further to this, it is generally assumed that there is no variation of secondary infections generated by a single infected case. This is known to be false because of the understanding of superspreader events in which a single individual may infect a large number of subjects. This phenomenon has been observed in cases of SARS, MERS, and the novel coronavirus. As a result, available models are not able to fully appreciate the large degree of heterogeneity in the transmission of and susceptibility to an infectious pathogen. Furthermore, R_0 is constantly modified over the course of an epidemic because of mitigation approaches that are designed to reduce R_0, specifically the duration of contagiousness, the likelihood of infection, and the rate of contact between infected and susceptible individuals (Viceconte & Petrosillo, 2020).

Despite its potential flaws, R_0, will continue to be used to describe contagions. In addition to difficulties in estimating this parameter, it is critical to note that R_0 is not related to an infection's potential lethality. As an example, Ebola (R_0 ranging from 1.5 to 2.5) is far more deadly than the more contagious influenza in its regular form (R_0 ranging from 2 to 4). The most contagious pathogens, pertussis and the measles, with R_0 on the magnitude of 12 to 18, are well controlled by efficacious immunization strategies (Rodrigue, n.d.).

Reemergence of ID that had significantly declined in the past

Causes of the reemergence of so-called "old" ID are numerous. In some instances, pathogens may become more virulent through evolution over time, but in the majority of cases, it is a result of human behavior. An example of this is provided through examination of the changing interface between humans and the global environment. Over the course of the past century, populations have grown, people have migrated to cities, international travel has increased, and poverty, war, and destructive ecological changes have all occurred as a result of economic development and increases in land use (BCM, 2020).

As with the initial emergence of an ID, reemergence depends on at least the two following factors:

1. The infectious agent must come into contact with a susceptible population.
2. Ready transmission of the agent must exist, allowing rapid spread from persontoperson, causing disease (BCM, 2020).

In addition, the disease must be self-sustaining to allow more and more people to become infected. It is acknowledged that a number of IDs are passed from animals to people. So, when humans move into new environments, it becomes more likely that they may come into contact with species of animals that are hosts to IDs. Increases in population density and mobility both facilitate the reemergence of disease that had been previously vanquished. Another critical factor in the reemergence of IDs is increased rates of AMR. As microorganisms evolve, they are sometimes able to develop a resistance to the drugs that were once effective against them. This resistance can allow once dormant diseases to flourish (BCM, 2020).

Lastly, a key contributor to reemergence is a decline in the use of immunizations (BCM, 2020). There is a growing population of people who refuse to vaccinate themselves and/or their children. In many cases, this is driven by controversial studies linking measles vaccinations and autism (BCM, 2020).

Measles (United States)

WHO states that the definition of measles elimination is "the absence of endemic measles virus transmission in a defined geographic area (e.g., region or country) for at least 12 months in the presence of a surveillance system that has been verified to be performing well" (Masresha et al., 2018, p. 1). In 2000, measles, according to the WHO definition, was no longer a presence in the US. According to the CDC, this means that because of substantial levels of immunizations, the risk of Americans contracting measles is low. Nonetheless, there is an expectation that measles will remain present in the US because of importation of the virus from other countries. The risk incurred by this reality is that these few cases of measles can spread among people who are not vaccinated, leading to outbreaks. The CDC fears that if such an outbreak is able to be sustained for a year or more, the US risks losing its measles elimination status. As a result, the US remains vigilant and prepared to respond to any incidence of measles (CDC, 2020a).

The achievement and maintenance of measles elimination required monumental effort, reliant on substantial investments in time and resources. To lose elimination status would lead to efforts to reestablish this status, consuming valuable resources that could be better deployed elsewhere. It is well acknowledged that the key to preventing this threat is to ensure adequate levels of vaccination in all communities. It is especially important that children adhere to measles, mumps, and rubella (MMR) vaccination schedules and that international travelers confirm their immunization status before departure (CDC, 2020a).

Measles outbreaks are defined as chains of transmission involving three or more cases that are linked in time and place. Such assessments are determined by local and state health department led investigations. Internationally imported cases of measles can be surmised in cases where at least part of the exposure period (usually 7 to 21 days before the onset of rash) occurred outside of the US and the rash began appearing within 21 days of reentry to the US with no known exposure to measles in the US during the exposure period (Patel, 2019).

During the first three-quarters of 2019, a total of 22 measles outbreaks in 17 states, encompassing a total of 1,163 individuals, were recorded in the US. An additional 86 cases were not associated with a defined outbreak. Not only was this the second highest number of outbreaks since the 2000 elimination of the measles, it was the largest number of cases in a single year since 1992. Of those infected, 89% were patients who had not been properly immunized or whose vaccination status was not known. Furthermore, a total of 119 patients (10%) developed serious enough illness to require hospitalization. Transmission continued for nearly 1 year in closely related New York State outbreaks. The majority of these outbreaks (934, 75%) were rooted in large, closely knit Orthodox Jewish communities. Fortunately, a vigorous response effectively halted the transmission of disease before the 1-year mark, preserving US elimination status. In efforts to maintain the current lull in cases, continued vigilance and collaboration between public health officials and communities with high rates of undervaccination continues (Patel, 2019).

As has been observed in most US outbreaks since the 2000 elimination of measles, the majority of the 2019 outbreaks were of limited scale and duration because of high population immunity and the rapid application of outbreak measures by public health authorities. Of note, there were two more sustained outbreaks in New York that persisted for a longer period of time because of the following three critical risk factors (Patel, 2019):

1. Areas of low vaccination coverage and, in general, a variable acceptance of vaccinations.
2. High population density in the impacted communities coupled to relatively closed social behavior.
3. Repeat cases of measles importation by unvaccinated individuals traveling internationally.

Responses to the outbreaks were multipronged and included the administration of approximately 60,000 doses of MMR vaccine, specialized communication strategies, partnering with religious leaders, physicians, health centers, and advocacy groups (Patel, 2019).

Evidence-based practice! In an effort to better understand a measles outbreak involving 649 confirmed cases in a New York Orthodox Jewish community, Yang modeled the transmission dynamics of the outbreak in an effort to identify root causes. To this end, he used a model based on age to estimate important epidemiological factors, including initial susceptibilities, the reproductive number (R0), contributors to spread of measles, and the proportions of infection attributable to each age group. Lastly, an effort was made to assess the impact of vaccination campaigns on modulating the outbreak. Findings from this work indicated that the delayed vaccination of children aged 1 to 4 years enabled the spread and enhanced infectious transmission. Approximately one-half of infants were susceptible at age 1 year and suffered many infections. Data obtained suggested that the vaccinations that did occur were effective: in the total absence of vaccinations, the number of infections may have been as much as 10-fold greater than experienced. These estimates are supported by an observed effective R0 ranging from 1 to 1.5 (compared to 12 to 18 in a totally susceptible population). Yang concluded that vaccination campaigns are critical to temper measles outbreaks and that enhanced public health education is needed to reduce unneeded exposure of children to measles and other infectious agents (Yang, 2020).

Case study 2

A 7-year-old boy, Roger, recently returned from Taiwan, was feeling a bit unwell. Nonetheless, he attended a matinee film. 9-year-old twin girls attended the same movie. It was ultimately determined, after a week's time, that Roger had contracted the measles, likely when visiting Taiwan. Before his diagnosis, Roger also infected his older sister Mary, just before she left to visit her grandparents in Iowa. 2 weeks after the chance theater meeting, the first of the twin girls developed a febrile rash, often associated with the measles.

Upon development of the first twin's rash, her mother took the girl to see their usual pediatrician, Dr. Steve. Despite the presence of a rash, because of the rarity of measles, Steve did not test the child for measles. Steve was puzzled by the presentation and consulted his colleague, Dr. Tanya. The idea of measles crossed Dr. Tanya's mind, but again, the uncommon occurrence of measles led her not to pursue the possibility. Steve concluded that the rash could be treated with 1% topical hydrocortisone cream and sent the twin home. Roger and both girls continued to attend school and participated in a variety of extracurricular activities. Within a week the second twin developed the same mysterious rash.

An attentive school nurse noticed a pattern of fever, rash, and cough in a number of children and grew suspicious. As part of her investigation, she reviewed the school's student immunization status records. Her detective work showed that a total of six students were not properly vaccinated for measles. Despite taking all of these students, and another who was immunocompromised out of school, a total of five of the six unvaccinated students, including the twin girls, Roger, and his sister Mary, ultimately contracted the measles. One of the infected students was a member of a traveling soccer team. After diagnosis, all of the team members and parents were advised of the case of measles among the team. 2 weeks after this, one of the adult trainers (born in the 1960s) developed symptoms consistent with the measles. Although he notified his doctors that he had been exposed to measles, like the twin, he was not tested. The disease was more serious for the adult, requiring a brief hospitalization. Since his immunization status was unclear, blood was drawn in an attempt to assess immunity. Results indicated that he was not properly protected.

The trainer, a truck driver, had been driving about making deliveries while infectious. Additionally, he was married to a woman who was 39 weeks pregnant. Serologic testing showed that she had been properly vaccinated and was immune to measles. Unfortunately, the male trainer had attended several Lamaze classes with his wife while infectious. While no efforts were made to identify the contacts he had encountered while working, exhaustive tracing was undertaken to ensure that all of the people that he contacted at the Lamaze classes had been properly

vaccinated. Meanwhile, the public health department had been notified and the man was ordered into quarantine. Unfortunately, he was still in isolation when his wife went into labor, and he missed the birth of his first son.

Including Roger, the twins, Mary, the soccer trainer, and the other two students, at least seven people contracted measles in this outbreak.

Self-Assessment Quiz Question #2

Although CDC has stated that the chances of getting measles in the US are low, occurrences of measles can happen. Which of the following is the most likely scenario that might allow a measles outbreak, such as that described in this case study, to occur?

a. Comprehensive vaccination programs and travel to developed countries.
b. Incomplete vaccination efforts and travel to developing countries.
c. Genetic mutations conferring susceptibility to measles infection.
d. High vaccine acceptance rates.

Self-Assessment Quiz Question #3

If a measles outbreak in the US is sustained for a period of at least 1 year, what is one potential outcome?

a. Enough people will be infected to create a new level of immunity, halting spread of the outbreak.
b. The chances of contracting pertussis will increase.
c. The US risks losing its measles elimination status.
d. It can be expected that such outbreaks will be more common in rural than urban settings.

Self-Assessment Quiz Question #4

Although there are many factors that can lead to the reemergence of an ID thought to be eradicated, overall, which of the following situations was most likely to contribute to the measles outbreak described in the case study?

a. Antimicrobial resistance.
b. Decreases in population density.
c. Reduced mobility.
d. A growing population of people who refuse to vaccinate themselves and/or their children.

Pertussis (Japan)

Beginning in the early 1900s, the microorganism Bordetella pertussis, which caused the disease pertussis (whooping cough), was studied in rodents. As a result of this early work, a number of toxins and so-called protective antigens were discovered. Unfortunately, while providing some protection from the disease, significant adverse events were implicated with the use of these early vaccine products. Research continued, resulting in the development of safer products (Cherry, 2019).

By 1974, Japan had assembled a successful vaccination effort to protect children from pertussis. In that year, it is estimated that almost 80% of children were vaccinated, and only 393 cases with no deaths were reported (CDC, 2018). As far back as the 1940s, though, reports have been published suggesting that some vaccines may lead to severe neurological disease. Critical to the pertussis vaccine was a 1974 article by Kulenkampff et al. (1974). This publication described observations of 36 children over the course of 11 years that were thought to suffer neurological complications after immunization for pertussis. They rationalized their findings by noting that the complications were all clustered around the 24-hour interval after inoculation. In summary, they suggested that the pertussis vaccine should be avoided in patients with a history of fits (sudden appearance of a symptom; Farlex Partner Medical Dictionary, n.d.), a family history of fits, or those with previous reactions to vaccinations, recent infection, or with presumed neurological deficit (Kulenkampff et al., 1974). Additional studies conducted in Sweden, Wales, and England found high incidences of encephalopathy thought to be linked to vaccines. In addition to rumors regarding the safety of the pertussis vaccine, it was believed in Japan that the pertussis vaccine was no longer needed. By 1976, only 10% of newborns were vaccinated for pertussis (CDC, 2018).

In 1979, a pertussis epidemic took hold in Japan, resulting in more than 13,000 cases. Mortality attributed to this outbreak was estimated to be 41 deaths. In the meantime, efforts were in play to develop a novel, safer vaccine. In 1981, the Japanese government reinitiated an immunization program using the new product. As a result of this campaign, the number of pertussis cases began dropping to pre-1974 levels (CDC, 2018).

Vaccine hesitancy – Anti-vaxxers

WHO defines vaccine hesitancy as a "delay in acceptance or refusal of vaccines despite availability of vaccination services." Vaccine hesitancy is a global phenomenon, reported in more than 90% of countries. As an example, immunization for measles has dropped to less than 95% in multiple regions. This is critical, because this is the immunization threshold set by WHO to maintain herd immunity (The Lancet, 2019).

Nursing consideration: Unfortunately, the fear of autism's linkage to vaccination is still prevalent in our communities. Effective nurses and APN should familiarize themselves with this controversy, allowing them to help allay the fears of their patient's caregiver or parents.

In an effort to support healthcare professionals' efforts to increase vaccine uptake, WHO has developed a series of training modules designed to aid in facilitating difficult conversations with those that are vaccine hesitant. It may be useful to consider the statement by Dr. Michael Gannon, president of the Australian Medical Association, who noted that pediatric patients are 10,000 time more likely to suffer neurological injury as a result of measles than by vaccination (The Lancet, 2019).

The threat of vaccine hesitancy is real, and is threatening to reverse many of the great accomplishments to date in the battle against ID. In an effort to reverse the current anti-vaxing trend, all health professionals, public health officials, governments, and the industry must collaborate to dispel the myths and misinformation regarding vaccinations (The Lancet, 2019).

Case Study 3

Jennifer appears to be a happy, well-developed girl, aged 2 years. Her family recently relocated and is taking her for her initial visit to a Pediatric Nurse Practitioner (PNP), Mike, for her 2-year-old well-child examination. After visiting a bit with Jennifer's mother, Mike learns that Jennifer has had a few ear infections and her mother believes that she may be developing another. Jennifer was born at 36 weeks gestation, the product of an in vitro procedure. She was breastfed for 1 year and appears to have met all of her development milestones. Jennifer's mom feeds her a balanced diet of organic fruits and vegetables and provides plenty of oat milk in a sippy cup. The entire family is vegetarian. She has no siblings and her parents, both aged 43 years, exercise regularly and are healthy. Everything went pretty much according to Mike's plans, until he reached the topic of immunizations. Jennifer's mom stated that she had received no immunizations. When Mike politely asked the reason for the decision to forego the usual brace of vaccinations, her mother shared her maternal concerns. She explained that her sister's baby was diagnosed with autism at age 2. She went on to say that he was a perfectly healthy baby until he received his 1-year vaccines. She got emotional at that point and said that it has been very difficult for the family, and she is certainly not going to make the mistake that her sister made. Furthermore, she believed that it would be better for Jennifer to develop natural antibodies the way they did in the old days, like with measles and chicken pox.

Self-Assessment Quiz Question #5

What is the most likely reason that Jennifer's mom is unwilling to vaccinate her daughter?

a. She is not very interested in the well-being of Jennifer.
b. She is convinced that ID are a product of conspiracy theories.
c. She believes that immunizations can do more harm than good.
d. She believes that vaccine-preventable diseases no longer exist.

Human response to EID

Certainly, many EID are serious, some with potentially fatal consequences. Despite these obvious outcomes, the total impact on humankind is likely more complex.

Psychosocial impact of EID

The evolving COVID-19 pandemic, seemingly changing on a daily basis, lends itself to the dissemination of misinformation and confusion, resulting in a dazed population, unclear on what to fear, who to trust, and how to best live their lives. These feelings are not new; a long history of major ID outbreaks has provided examples of societal response. In 1990, Philip Strong, against the backdrop of HIV/AIDS, authored Epidemic Psychology: A Model. In this critical book, Strong explained how epidemics are able to create threats to the human race by pitting all of society against one another (Strong, 1990). Large outbreaks of novel ID often result in enormous threats to public health and global economies, planting fear, stigma, and a variety of calls to counteract the disease (Loveday, 2020).

Pandemic-associated distress encompasses closely related ideas. For example, fear of the emerging infection may lead to suspicions that those around us may infect us. Early on in an epidemic, if there is an uncertainty of how exactly the disease is transmitted, additional anxieties can develop as individuals consider the possibilities: is it through human contact, the environment, food, breathing, coughing, or sneezing? These ambiguities can breed fear, which may lead to irrational behavior. Typically, the next step is the stigmatization of those infected with the disease, resulting in stereotyping of the main carrier groups. While these phenomena plant the seeds of fear, in many cases, incessant media commentary typically provides the conditions for fear to grow. Media headlines often discuss superspreader events and describe the so-called patient zero, both of which help to characterize scapegoats. While much of this is sensational and raises the visibility of those reporting it, the media often lacks useful information that individuals might use to protect themselves from infection (Loveday, 2020).

The public is often faced with unrelenting amounts of information, with much of it intended to place blame on how an EID could have been allowed to occur. The opinions offered often conflict with one another. In some cases, explanations offered result in unsubstantiated moral judgements, which again, are not usually productive (Loveday, 2020).

To counter a pandemic, there must be a call to action, ranging from local to international responses. To be effective, many of the countermeasures taken will infringe on rights and freedoms, while disrupting normal trade, travel, and personal activities. While such reactions may result in tamping down the EID in the short term, long-term social unrest and distrust often results. In the initial phases of the coronavirus outbreak in China, seemingly draconian measures appeared to be effective at curbing the spread of infection. Nonetheless, the sometimes forceful removal and quarantine of citizens suspected of harboring the virus created harsh optics that could be difficult to see and accept in return for a hope of eradicating the disease. WHO and similar public health organizations have, in some cases, been able to develop balanced public health messages designed to counter the panic-causing misinformation often associated with EID (Loveday, 2020).

Despite these efforts, it appears that the model suggested 30 years ago by Strong still describes the human response to novel EID: initial overreaction, followed by the emergence of news and images confirming society's worst fears. It is incumbent on health professionals to best understand all available information and help their patients to best normalize the threat so that they can make proper decisions. A sense of proportion is required that allows individuals to take infection threats seriously while toning down fear, stigma, and scapegoating.

Effect on routine healthcare

In the case of the COVID-19 pandemic, while hospitals were often flooded with patients seeking care, general practitioners often reported a lack of patients, with a number of elective procedures postponed indefinitely. In addition to the fear factor, millions of people lost health insurance and the ability to pay for critical preventive care. Many experts predict that the COVID-19 pandemic will be followed by a second, less obvious pandemic, fueled by poor diet, diminished exercise, avoidance of maintenance medications, and mental health flare ups. Potentially more serious are reported anecdotes of decreased incidence of heart attack and stroke, with some suggesting that this is a sign of people avoiding hospitals even in the most extreme situations. As a corollary observation, reduction in healthcare access is a well-acknowledged cause of morbidity and mortality subsequent to natural disasters. The reduction in healthcare usage has been associated with layoffs and, potentially, facility closures. At such time that society begins to return to normal, these deficiencies may result in healthcare shortages (Barnett, 2020).

The incidence of measles infections has risen on a global basis of 556% between 2016 and 2019. The fundamental cause of this increase is a failure to immunize. While a hesitancy to vaccinate is likely driving some of the acceleration, access barriers are also contributing to inadequate levels of immunization. Some experts share a concern that the COVID-19 pandemic is likely to make matters worse. Evidence showed a significant decline in routine childhood vaccinations in the first 8 months of the pandemic. It appears that under-resourced public health departments, overwhelmed with a response to COVID-19, have largely not identified locations where immunization coverage is lacking. This lack of oversight allows the development of pockets of potentially susceptible individuals. Meanwhile, the practice of social distancing reduces travel and social interaction, all while wearing facial coverings and taking other precautions that give the measles virus

fewer opportunities to spread. This results in the creation of "artificial scenarios," suggesting safer than actual conditions. As a result, when the COVID-19 pandemic eases and restrictions are removed, it seems reasonable to expect an acceleration in the incidence of measles (Belluz, 2020).

Nursing consideration: Nurses should be especially diligent in their efforts to ensure that their patients remain up to date with their vaccinations. In the case where patients have fallen behind on their scheduled immunizations, nurses can suggest adherence to CDC endorsed catch-up vaccine schedules. The CDC pediatric catch-up vaccination schedule can be found online at https://www.cdc.gov/vaccines/schedules/hcp/imz/catchup.html

Mental health issues

It has been reported that an escalation of mental health and substance abuse problems has been occurring during the COVID-19 pandemic. What may not have been expected is the scale of these issues. It appears possible, if not likely, that mental health and substance abuse may reach their own epidemic proportions. The combination of high unemployment, housing instability, and social isolation work in unison to result in a reported one-third of Americans experiencing new or worsened mental health symptoms. Alcohol sales since the beginning of the pandemic have risen by 250%. Likely most alarming is the number of individuals needing treatment that are delaying, avoiding, or are unable to access proper care. While telehealth may help some, it has been suggested that those most needing assistance have the fewest resources and are thus unable to take advantage of these technologies. Staffing shortages caused by pandemic health conditions may also hinder mental health professional efforts. The reality of the situation is that if mental health needs are not adequately addressed in times of a pandemic, the result will be an increased number of drug overdoses, suicides, homelessness, and untreated mental illness. Sadly, it is anticipated that these consequences are most likely to impact the same populations of people most at risk of contracting an EID: people of color, older people, and those of lower socioeconomic classes (Kozak, 2020).

Nursing consideration: Nurses can certainly make a difference by checking in with their patients to proactively screen for medical concerns. Nurses can communicate to their patients that they are never too busy to help and, despite changes to practice during a pandemic, they remain present to serve as a main conduit to healthcare.

Pandemic fatigue

While individuals may be more willing to take the precautions required early in a pandemic to prevent the spread of infection, it is evident that, at some point, many will become tired of following these guidelines. This phenomenon can be called pandemic fatigue. Pandemic fatigue occurs at the point that people get frustrated with their situation and want to return to the life they enjoyed before the pandemic. As a result, some may give up on protective measures. Unfortunately, if the pathogen is still present in the community, these lax practices provide an opening for it to infect more people. It can be hypothesized then, that pandemic fatigue can be a contributor to the spread of an EID (Akins, 2020).

Human attribution for EID

Many individuals may decide that the optimum approach is to seek and follow the best scientifically-supported approaches to avoiding, managing, and treating an EID. Pragmatically, this logic-based method may be a good way for some to cope with the out-of-control feelings associated with pandemic disease. Others may employ different tactics, such as denial of the problem or focusing more on assigning blame to the perceived cause of the pandemic.

Blame

According to the Stanford Encyclopedia of Philosophy, blame is a negative response pointed at someone, or their behavior. As an example, in the case where one party wrongs another, the victim reacts with a verbal rebuke. Of course, blame could also be focused on someone for their attitudes or characteristics. Since blame can be directed at a plethora of offenses, the act of blaming can also vary greatly, including a broad range of inward and outward responses to beliefs, desires, emotions, and expectations. Blame is a very common part of the human moral experience. While praise may be the counterweight to blame, the latter response remains a more significant component of moral philosophy (Tognazzini & Coates, 2018).

Uniacke (2020) takes a more contemporary approach to blame, acknowledging that accidents happen and, on some occasions, life does not proceed according to plan, noting that in some cases, the default reaction is to find someone else to blame for their problems. In truth, most of the things that happen in life result from manifold contributing factors and can be caused by a mixture of actions – some of our own making and some contributed by others. As a real-world example, consider a cyclist hitting a rough patch in the road and falling. If the incident was deconstructed, it may become evident that while the poorly maintained road contributed to the accident, perhaps if the cyclist was not going so fast and was looking where they were going, they could have avoided the hazard. Many mistakes will be made, some with minimal penalties, with others resulting in catastrophic consequences. It is critical that when things do go wrong, individuals acknowledge their errors and learn to do better going forward. In the absence of this process, humanity is doomed to never being able to improve itself (Uniacke, 2020).

Blame, as it relates to pandemics

So, blame is a destructive emotion, yet often a go-to part of the human toolkit. It seems likely that when it comes to pandemics, such as the coronavirus, it is critical for many to be able to assign blame. Specifically, they are likely to attribute blame in line with the classic definition provided by Tognazzini & Coates (2018), which states blame is a negative response pointed at someone or at their behavior. Unfortunately, there are ample examples to prove that hypothesis.

A recent article in Breitbart News stated that the coronavirus originated in Wuhan, China, and that the Chinese government was not forthcoming in describing the seriousness of the outbreak. Furthermore, they claim that WHO was well aware of the virus but withheld the information, while simultaneously praising China for their transparency on the matter. According to this account, then Vice President Pence stated that "China is to blame for the coronavirus," and then went on to state that China prohibited US personnel from entering China to investigate until mid-February, even though the initial cases of COVID-19 occurred in November 2019 (Bleau, 2020).

It appears evident that some are listening, with a few responders becoming self-styled vigilantes. Early in the pandemic, a Singaporean law student was attacked by a group of strangers. When walking in London one night, the victim passed a group of people. As he heard the word "coronavirus," he turned and one of the men in the group shouted at him, and then punched him in the face, leaving him with a black eye. One of the men shouted, "I don't want your coronavirus in my country," before striking him a second time in the face, resulting in facial fractures. The group then fled before the police arrived. The Metropolitan Police investigated the beating as a racially aggravated assault. In response to his ordeal, the victim posted to Facebook: "Racism is not stupidity – racism is hate. Racists constantly find excuses to expound their hatred – and in this current backdrop of the coronavirus, they've found yet another excuse" (Iau, 2020).

Evidence-based practice! Cho et al. (2020) conducted a nationwide (US) sample of 842 adults in an effort to characterize factors associated with a stigmatization of Asians during the COVID-19 pandemic as well as to discover factors that can prevent or mitigate stigmatization. Data obtained from this effort were able to assign racial prejudice, biased media, and maladaptive coping techniques as causes of stigmatization. Of these features, racial prejudices, stereotypes, and emotions toward Asian Americans were the strongest predictor of stigmatization. People who felt relatively powerless to deal with COVID-19, while estimating its high perceived harm, were more likely to stigmatize Asian Americans. Investigators concluded that in order to reduce stigmatization, racial stereotypes, emotions, maladaptive coping, and biased media need to be countered through the provision of education and enhanced public resources to better understand the causes of COVID-19 (Cho et al., 2020).

Oddly enough, all of the blame is not just directed at the Asians, as explained in a publication by Jean (2020). She states that a number of reports are appearing that blame Jews for the recent COVID-19 pandemic. According to these accounts, Jews intentionally invented the coronavirus to spread it globally, and then used it as a way to profit or achieve global control, adding that historically, economic downturns have always led to increases in antisemitic acts. The imagery and language employed in this tactic are similar to the medieval "blood libels," where Jewish people were blamed for spreading disease through the poisoning of wells in order to control economies. The current conspiracy theories were most frequently reported in the US, France, and Germany (Jean, 2020).

Many individuals blame the government for the ravages of COVID-19. Harvey suggests that partial re-openings of the US economy may be a direct cause of the COVID-19 resurgence, with most of the blame being assigned to state and local governments for their decisions to reopen. While acknowledging that much of the rhetoric presented by governors and mayors has not been helpful, he asks, what choice did they have in the matter? Since the federal government failed to address their local problems, reopening was the only approach that could possibly repair budgets that were decimated by shutdowns. He argued that the federal government should have aggressively attacked the economic problems early in the pandemic. Perhaps if individuals were not so concerned for the survival of their businesses, they might not have been so eager to reopen (Harvey, 2020).

There seems to be plenty of blame available for consideration relating to the root causes of the current COVID-19 pandemic. One not so obvious assessment was offered by Kessel, who bluntly stated in a September 2020 article that "the pandemic is your fault." Most people who are doing what they are told, wearing a mask, social distancing, and washing their hands frequently may scoff at this thesis. Our ability to easily assign blame may help us to shrug off this notion with contempt. A large majority of Americans place blame for the global spread of the coronavirus squarely on the Chinese government for not rapidly containing the contagion. Others blame politicians for prioritizing their political future over the health of those that they govern. Alternatively, it is easy enough to blame people holding large unmasked parties or bar goers. There is ample blame to go around. Pinning the blame for the virus on one's self, though, can be difficult. Nonetheless, some experts say that everyone plays a role in creating conditions favorable for explosive EID. The causative factors are not always evident, though. These ID experts posit that food choices, the clothes that are worn, the decision to own electronic devices, bearing children, and the amount of travel, for example, are all choices that apply pressure to the natural world. According to this view, it is nearly impossible to make choices that do not stress the natural world. In short, the more that humans interrupt native ecosystems, the better the odds that mankind will contract the diverse and potentially deadly viruses that wild animals carry (Kessel, 2020).

It is understood that the pathogens causing EID have been present for millennia. Humans have colonized every corner of the earth, bringing populations into contact with the last remaining wildlife-borne viruses that have not yet infected people. According to this thinking, no person caused COVID-19, rather, it was a group effort, involving everyone in the developing world. Human appetite for consumption has changed the planet to such an extent that people now subjugate every ecosystem on earth. Nonetheless, humans typically fault one country or another for their problems, blaming people who choose to eat one species of animals over another. Others cite acts of God, blaming nature for their dilemma. In Kessel's view, people need to collectively accept the blame for COVID-19 and many other global problems, understand what is happening, and then take decisive action to change it (Kessel, 2020).

Case study 4 – Phase 1

Henry, an APN for a large family practice group in a Midwest college town, has noted an uptick in the number of COVID-19 cases in his community. He has studied current CDC practice guidelines and feels that he is doing a good job of protecting his patients and himself from infection. Unfortunately, none of his careful planning prepared him to manage a verbal outburst from his patient Julia. Julia had been experiencing symptoms of fever, cough, general fatigue, and an inability to smell or taste. Based on the presence of the novel coronavirus in the community and her symptoms, Henry suggested that she be tested for COVID-19. At first Julia resisted, stating, "I take good care of myself; only dirty people get the corona." Nonetheless, Henry persisted and, eventually, she agreed to be tested. Henry was not surprised when the test came back positive. This afternoon, he had to call her on the telephone to discuss the results and provide directions for her care.

Henry began the call by asking how Julia was feeling that day. She noted that she remained tired and was coughing a bit more and was still unable to taste or smell. Henry then told her that he had received her test results, and that, unfortunately, she had tested positive for COVID-19. Before he could even begin to describe what she needed to do for self-care and to protect those around her, Julia interrupted and started into a rant, making random comments about the China virus and how it was not her fault that the Chinese were unable to control the spread of the virus. Henry continued listening, thinking that she would wear herself out and he could continue. Eventually, she did slow down a bit and Henry was able to explain the need to isolate herself, treat her fever with ibuprofen, and call if her symptoms should worsen. Nonetheless, Henry was not happy with the interaction and felt that he was unable to provide proper care.

Self-Assessment Quiz Question #6

It is well acknowledged that humans often need to assign fault for predicaments. Which of the following statements about blame is *true*?

a. Blame is uncommon, its philosophical counter, "praise," is used much more often in American society.
b. In many cases, blame cannot be affixed to a single element; usually actions occur as a result of a combination of events.
c. Stereotyping usually plays no role in developing stigmatism in the COVID-19 pandemic.
d. Causative factors for the COVID-19 pandemic are evident and fully established.

Self-Assessment Quiz Question #7

Think about the way that Henry managed his conversation with Julia. Could he have done anything differently?

a. Henry approached the situation poorly. He should have immediately interrupted Julia and provided a factual representation of how the virus spread to and within the US.
b. Henry approached the situation poorly. He should have chastised Julia for not taking proper precautions to protect herself from the virus.
c. Henry approached the situation adequately but should have reassured her that the government had done everything possible to protect her and her infection was an unfortunate case of bad luck.
d. Henry did the best he could when dealing with a difficult patient. He listened and did not interrupt her, waiting until he was able to communicate what he had to say.

Politicization of pandemics

In addition to the risk of stigma arising from the occurrence of pandemics, the occurrence of such global disasters also leaves the door open to ambitious politicians who can use it to their partisan advantage. Again, the case in point is COVID-19. The Director General of WHO, Dr. Tedros Adhanom Ghebreyesus, recently stated that, indeed, the coronavirus is being politicized to the extent that there is no overall global leadership, creating a greater threat to humanity than the virus itself. In his words, global solidarity to counter a pandemic is vacant, and COVID-19 has made it worse. Although Dr. Ghebreyesus did not name who he thought was politicizing the pandemic, the US Government has criticized WHO and threatened to stop funding the global health organization. These global fractures demonstrates that, although the whole world is suffering from COVID-19, there is great disparity in the impact of and response to the pandemic among regions and countries (Voice of America [VOA], 2020).

As politicians continue their discussions over public bailouts, the prioritization of employer liabilities, and the correct way to conduct death counts, COVID-19 marches on with more infections, more death, increased unemployment claims, and general dread. As politicians remain engaged in tribal battle, action to obtain meaningful change often bears the brunt of it. The individual skirmishes have resulted in a piecemeal approach to managing COVID-19 across the US, to include reviving its economy. The easing of lockdowns in some regions has not resulted in the promised large-scale reductions in unemployment. Instead, such changes are often associated with increased incidence of viral infection (Marcellus, 2020). According to a Brookings Institute report, a coherent reopening strategy is much more important than individual state reopening timelines. This report goes on to state that, in order to keep people safe, it is necessary that Americans come to trust their government leaders, and that they receive a consistent message. These discrepancies and associated behaviors can be measured by examining surveys. A recent survey instrument found that 52% of people identifying as Democrats compared to 37% of Republicans practice social distancing and avoid even small gatherings. Further to this, differences can be observed by reviewing state policies governing lockdowns, which also reflect a political divide (Graham & Pinto, 2020).

Anthony Fauci, MD, Director of the U.S. National Institute of Allergy and Infectious Diseases, described the politicization of the coronavirus pandemic as unfortunate. As background, he stated that over the past 40 years or so, he has experienced a variety of infectious outbreaks, but never one with such divisiveness as that associated with COVID-19. Rather than politicize the situation, he claimed that it is critical that the government functions only in the context of good public health. Instead, in the US, the government's response to the pandemic has been widely criticized, downplaying the impact on the country and presenting dubious claims (Lavers, 2020).

While the US is not the only country guilty of politicizing COVID-19, some countries are taking steps to avoid it. In March 2020, it was reported that Otumbo Osei Tutu (the Asantehene [ruler] of Ghana) requested a 1-month moratorium on political activities so that Ghana could focus all of its attention on countering the coronavirus. It was his expectation that the media cool its political discourse and dedicate its coverage to methods designed to contain the viral spread. To this end, he suspended all major traditional activities at the Manhyia palace. The Information Minister was impressed with Tutu's efforts and encouraged other traditional rulers and institutions to follow the example set at the palace. Tutu's Deputy Chief of Staff of International Relations then advised all Ghanaians to adhere to directives discouraging social gatherings. The Ghanaian Representative to the United Nations, Nana Apenteng, stated that it is critical that the government projects a unified front against the coronavirus to avoid the collapse of Ghana's healthcare system (GhanaWeb, 2020).

Real solutions to managing EID

After better understanding the realities associated with an actual pandemic, the urgency to prevent, mitigate, and respond to emerging ID seems evident. While human nature may gravitate toward the assignment of blame for emerging ID and politicians are often quick to seize the occurrence of pandemics as a tool, it is generally more useful to focus on what can be done to avoid it--failing that, to blunt its impact.

In 2017, the CDC issued a document, National Pandemic Influenza Plans. Predating the COVID-19 pandemic by at least 2 years, it describes, in general terms, a coordinated national approach to managing a pandemic. In summary, it states that the US government has long been aware of the hazards of an influenza pandemic (CDC, 2017c). Ignoring high-level government platitudes, there are a few things that can be done to help better understand EID, preventing, and managing pandemics.

How to best control/manage EID

Better hygiene

For any infection to become problematic, the pathogen needs to enter the body, multiply in numbers, and then interfere with typical body function. Developing a good understanding of how infections are transmitted can go a long way toward avoiding sickness. The way that organisms move from host to host is not fully worked out and new knowledge is continually emerging. In broad strokes, what is known is that the majority of pathogenic microorganisms enter the body through orifices, such as the mouth, nose, eyes, ears, anus, or genital passage. In some cases, they are able to transit the skin through animal or insect bites. No matter the access point, infections can be stopped by preventing the entry of pathogens to the body. Although these guidance statements were written with generalized infections in mind, these approaches are also applicable to mitigating the spread of emerging diseases that have established a toehold in a community. One of the best and primary defense strategies is based on solid personal hygiene. In many cases, the spreading of infection can be stopped by adhering to a few critical habits and guidelines described below (Harvard Health Publishing, 2016):

- Handwashing. Hands should be thoroughly washed with soap and water for at least 20 seconds, rinsed, and then dried after using the bathroom, before preparing or eating food, and after completion of dirty tasks. Handwashing should also follow nose blowing, coughing, sneezing, and caring for a pet or sick person. So far as technique, it is important that hands are thoroughly wetted and lathered with soap, rubbed into the palms, back of hands, and wrists. The fingertips, between the fingers, and under fingernails must also not be neglected. Lastly, it is important to rinse under running water and dry hands and wrists completely (Harvard Health Publishing, 2016). In the absence of soap and water, hand sanitizer (containing at least 60% alcohol) is an acceptable substitute.

Evidence-based practice! It is well accepted and supported by data that proper handwashing is critical to curbing the spread of ID in a clinical setting. Zivich and colleagues (2018) noted that the impact of handwashing on reducing the incidence of ID in nonclinical workplaces was not well established. In order to resolve this lack of information, they led a systematic review of the scientific literature to characterize the impact of handwashing on ID prevention in office-based workspaces. To this end, they evaluated a total of 11 studies published between 1960 and 2016. These publications were able to demonstrate that hand hygiene, at various levels of rigor, was able to reduce self-reported symptoms of illness. More specifically, these analyses suggested that proper hand hygiene is more effective against gastrointestinal illness than respiratory disorders. Nonetheless, they note that complete consensus on this observation was not present. Overall, investigators concluded that even minimal hand hygiene efforts were effective at reducing the incidence of employee illness through reduced infections (Zivich et al., 2018).

Nursing consideration: It is well established that we live our lives surrounded by germs. While some are harmless and even helpful, our world is also sprinkled with dangerous species. Fortunately, rudimentary sanitary practices are able to combat many of these organisms. Nurses must ensure that their patients are aware of these facts and are well educated about the necessity of proper handwashing and sanitation. These practices are essential companions to all forms of healthcare.

- In order to stop the spread of airborne microorganisms, it is important to properly cover the mouth when coughing or sneezing. Ideally, the mouth and nose should be covered with a tissue, which is then disposed of. If a tissue is not available, the next best approach is to cough or sneeze into the elbow rather than into the hand.
- All skin injuries (cuts) should be promptly washed and bandaged. In the case of serious lacerations, prompt medical assessment and treatment are often warranted.
- Healing wounds, blemishes, and pimples should be left alone: picking at them may open the skin, providing a microbial access point.
- Sharing of glasses, dishes, or other eating utensils should be avoided.
- Napkins, tissues, or handkerchiefs used by other people should be avoided.

(Harvard Health Publishing, 2016)

In most cases, foodborne infections are not especially serious. Nonetheless, on occasion, ID breakouts have been linked to issues with contaminated food – some resulting in serious medical conditions. In the majority of cases, these types of infections can be avoided by proper preparation and storage of foods (Harvard Health Publishing, 2016). A few guiding principles include the following (Harvard Health Publishing, 2016):

- Carefully rinse all foods under running water before cooking or serving.
- Thoroughly wash hands with soap and water both before and after handling raw meats or fish.
- Retain separation between raw and cooked foods, avoiding the sharing of utensils used for raw and cooked meats without properly washing between uses.
- Cook and reheat hot foods to an appropriate temperature using an internal thermometer.
- Thaw frozen foods only in the refrigerator or microwave oven.

Nursing consideration: The incidence of foodborne bacteria, both susceptible and resistant to treatment with antibiotics, is widespread. Fortunately, these pathogens can generally be killed using proper cooking methods. Nurses should educate their patients on these potential risks and encourage them to handle and cook their foods properly to avoid illness from foodborne pathogens.

Public health measures

In 1920, Charles-Edward Amory Winslow, an American bacteriologist and public health expert, wrote that "[public health is] the science and art of preventing disease, prolonging life, and promoting health through organized efforts and informed choices of society, organizations, public and private, communities, and individuals" (Winslow, 1920). Specifically, public health is directed to the study of population analyses designed to improve well-being and quality of life by preventing and treating disease and other health conditions. Public health can be broken into fields of study that include epidemiology, psychology, environmental health, behavioral health, as well as occupational health and safety. Since the study of public health requires the analyses of large datasets (based on populations of interest), the proper use of statistics is critical. Multiple datapoints (samples from a larger population) are collected and, when analyzed, can be used to make inferences about the greater population. In general, as the science of data and statistical analyses has matured, advances in the field of public health have been appreciated. Scientists interested in promoting public health learned as early as the 1820s that they could best help large populations of people by using data and statistics to structure information in a way that readers could easily absorb and understand (Oregon Health & Science University [OHSU], n.d.).

Further to the proper sharing of information, significant medical discoveries in the 1850s contributed to public health. In 1854, statistics, maps, and mortality data were employed to determine the source of a cholera outbreak in London. Using these findings, the public water supply was repaired to control the outbreak. On the basis of this experience was born the modern field of epidemiology. In addition, shortly after this time, the science of bacteriology emerged. By the 1880s, a number of highly pathogenic bacteria were identified. These discoveries formed the foundations required to determine how these diseases spread and facilitated the development of vaccines to prevent epidemics. By the 1890s, bacteriology laboratories began to appear in many cities. These facilities were purpose-built to allow the identification of a variety of diseases such as diphtheria, tuberculosis, typhoid, and cholera. They were able to examine a variety of media, to include foodstuffs, to best maintain the health of their communities. Whenever a potential communicable disease was identified, samples were collected and sent to the city's bacteriology laboratory for evaluation. If a culture was positive, the source of infection could be isolated by quarantine in order to protect the community. In addition, bacteriologists detailed causes of death in the community, to include the presence of communicable disease (OHSU, n.d.).

While historically public health was focused on the practice of collecting outbreak data to control the spread of ID, current infection control approaches rely on surveillance for early detection of infections in an effort to prevent disease. WHO supports an infection prevention campaign called "Clean Care is Safer Care." The objective of this program is to ensure that infection control is fully appreciated as a critical contributor to patient safety and well-being (Decision Support in Medicine, 2017).

A number of factors and tools are required to support public health; examples include the following (Decision Support in Medicine, 2017):

- Surveillance.
- Data analysis.
- Public reporting of communicable disease data.
- Investigation of ID outbreaks.
- Education to both healthcare professionals and the public.
- Development of effective guidelines.

Increased vaccination rates

Vaccine products are able to protect the body from ID by eliciting immune responses resulting in the formation of antibodies to counter the pathogen. In many cases, vaccines are able to offer a cost-effective, safe, and efficacious tool intended to prevent illness, accompanying disability, and potential death resulting from ID. Over many years, vaccines have saved millions of lives and significantly decreased the incidence of a variety of sometimes deadly diseases. Nonetheless, there remains a need for novel vaccines to counter existing and emerging pathogens. As a result, abundant research is being conducted by government and commercial organizations (National Institute of Allergies and Infectious Diseases [NIAID], 2020).

In an effort to partially solve the problems of EID, global efforts are underway to develop efficacious vaccine products. In the US, the Advisory Committee on Immunization Practices (ACIP) was formed to generate recommendations for the optimum use of vaccines to the director of CDC and the Secretary of HHS. ACIP is classified as a federal advisory committee that makes their decision making and documents available to the public. They use an evidence-to-recommendation approach, based on burden of disease; safety and efficacy of the vaccine product; acceptability to patients, clinicians, and immunization programs; as well as issues related to implementation of immunization programs (Lee et al., 2020).

Despite significant efforts by ACIP to provide recommendations designed to guide the use of vaccines, such policy making for rapidly emerging ID present unique challenges. For example, the burden of disease may be unevenly distributed, inflicting greater impact on older individuals and those of color. Furthermore, the risk of exposure and morbidity/mortality can vary greatly across populations. Differences in vaccine characteristics among candidates may dictate that certain products are preferable in some populations compared to other products.

Lastly, the timing of availability and supply chain limitations relative to demand often result in even greater complexities (Lee et al., 2020).

Typically, ACIP begins developing policy after many years of research. As a result, the target disease is often well characterized, to include transmission patterns, risk factors, and its immunologic properties. In the case of novel, rapidly emerging ID much of this critical information is unknown. Nonetheless, a need to make consistent, evidence-based recommendations is required. There is precedent for such policy making, though. ACIP played a critical role in developing guidance for use of a vaccine to counter the 2009 Swine Flu pandemic. In anticipation of the need for such guidance, ACIP convened an emergency meeting in July of that year to finalize their recommendations. These adoptions were widely implemented, facilitating the equitable distribution of a vaccine product and ensuring consistent communication (Lee et al., 2020).

In April 2020, ACIP formed a COVID-19 working group to begin the development of evidence-based approaches to a COVID-19 vaccination policy. The overarching goals were to evaluate all available evidence and provide recommendations for the safe and effective use of COVID-19 vaccine products, the chances of reducing disease transmission, morbidity, and mortality of COVID-19 disease. Furthermore, they examined the potential of vaccines to minimize societal disruption and to maintain proper healthcare capacity. Lastly, ACIP endeavored to adopt approaches designed to ensure equity in the allocations and distribution of any vaccine products. In July 2020, ACIP reconvened to discuss emerging information describing known epidemiology and pathology of disease as well as immunologic responses to disease, vaccine candidates, and considerations for their recommendations. Despite the many unknowns, rapidly emerging bases of evidence, and the need to work under conditions of high uncertainty, ACIP developed multiple principles designed to guide decision making. Safety was deemed to be of paramount importance, understanding that safety profiles may vary greatly across populations. It was determined that, in order to allow for the evolution of recommendations, real time monitoring of safety and efficacy would be required. ACIP also realized that it would be critical that their guidance would support an efficient and equitable distribution of any vaccine products (Lee et al., 2020).

Also, in June 2020, the U.S. Food & Drug Administration published their guidance on the development and ultimate regulatory licensure of COVID-19 vaccines. Recognizing the challenges of developing such a product in a limited time frame, FDA guidance recommended that a product should provide a minimum of 50% efficacy compared to placebo in the prevention of COVID-19 infection and disease (Lee et al., 2020).

Nursing consideration: Nurses and nurse practitioners, through comprehensive educational efforts, are in an ideal position to help break down some of the psychological barriers that may prevent proper vaccination practices. Nurses should make an effort to insert practical immunization information into their patient education repertoire.

Strategic testing

Definitive testing of people suspected of being infected with an ID provides critical data aiding in understanding the contours of a pandemic. It is important because it is impossible to know with certainty the true number of afflicted individuals, only the infection status of those that have been tested using an accurate instrument. As a result, in most pandemics, the true number of infected patients is typically higher than official counts. Test data can be misleading because jurisdictions may use differing approaches for reporting information. For example, some countries report the total number of tests performed, while others report the number of people tested (some people may be tested more than once). Test coverage by region is also inconsistent. In Iceland, a relatively extensive tester, more than 10% of the population has been tested for COVID-19. On the other side of the spectrum, Indonesia has tested far fewer of its residents: 0.01%. Typically, increased rates of testing provide more robust and reliable data. Statistical theory states that the larger the sample, the closer the resultant estimate will be to reality (that is to say the only way to know the true infection rate would be to test everyone). The other reason that increased testing is generally more accurate is that a high capacity for testing indicates that there is no need for rationing (testing only the highest risk individuals; Hassel, 2020).

The required testing capacity to provide an accurate assessment of disease spread varies over the course of an outbreak. At the beginning, when the number of infected is low, a much smaller number of tests are required to accurately assess disease spread. As the frequency of disease expands, test capacity must rapidly grow to meet the demand. As a result, the metric "number of tests/confirmed cases" is a reasonable tool that indicates if adequate testing is occurring. If the ratio is decreasing, that indicates that the amount of testing is becoming less adequate. As an example, as of April 2020, Vietnam conducted 400 tests for each confirmed case of coronavirus infection, while in the US approximately five tests were conducted for each case (Hassel, 2020).

It is evident that both testing coverage and the number of tests conducted for every confirmed case provide useful information to understand the spread of an ID. A jurisdiction that is conducting a small number of tests relative to the number of confirmed cases is not testing enough. While this approach may capture the most severe cases, it is likely overlooking asymptomatic people or those with mild symptoms. Unfortunately, these unidentified individuals may be contagious and able to propagate the ID (Hassel, 2020).

By late October 2020, the US had documented its 5 highest days of positive COVID-19 test results, with signs that these figures would continue to rise. CDC stated the need to develop a strategy to better identify individuals who are asymptomatic, yet contagious. These patients are not rare; according to recent CDC estimates, they comprise 40% of coronavirus positive cases. Dr. Thomas Tsai of the Harvard Global Health Institute noted that the time to develop a comprehensive national test strategy passed months previous. At this point, he stressed that the emphasis should be on developing an approach to identify asymptomatic COVID-19 patients (Vera & Maxouris, 2020).

Contact tracing

Contact tracing and case investigation are key tools in pandemic management. These activities involve close work with patients diagnosed with an ID. The main thrust of the work is to identify and provide support to the patient's contacts who may have been infected through exposure to the diagnosed patient. The objective is to separate those that are potentially infected before they can spread the disease to susceptible people. This process is a core disease control measure that has been used effectively for a number of decades. It is important to note that a proper response to an outbreak is multipronged: contact tracing is just one of the required tools (CDC, 2020b).

Case investigation is the process of determining who has received confirmed test results and probable cases of an ID. Contact tracing is the next step, where individuals who have come into contact with that person are identified, monitored, and offered support. If all infected and potentially exposed individuals can be identified and self-isolated, experience has shown that the chain of transmission can be broken, preventing further spread of the disease in a community. These methods are not novel, rather they have been effectively employed to curb the spread of a variety of ID, including tuberculosis, sexually transmitted infections, and HIV/AIDS. These approaches are well known by public health agencies and are designed to be easily adapted to a variety of ID (CDC, 2020b).

Aspects of the ID must be taken into consideration when designing effective case investigation and contact tracing operations (CDC, 2020b). Points for consideration include the following:

- If the ID can spread asymptomatically, contact tracing efforts must be more rapid than in cases where symptoms precede contagiousness.
- Procedural recommendations must be flexible to allow modifications as additional data emerges.
- Remote communications, i.e., by telephone, should be the primary contact approach.
- Prioritization, when needed, should be based on vulnerability.
- If capacity exists, patients with probable, as well as confirmed cases should be investigated.

- Extensive community engagement is critical to support acceptance of contact tracing efforts.
- In addition to identifying at-risk individuals, significant social support is also required to best facilitate safe self-isolation and testing.
- Jurisdictions must develop plans to rapidly organize contact tracing workforces at time of need.
- While digital contact tracing tools may supplement conventional efforts, they cannot replace the need for a large human contact tracing work force.

(CDC, 2020b)

Evidence-based practice! In the case of COVID-19, combinations of public health directives such as stay-at-home orders, public mask wearing, case investigations, contact tracing, and quarantine have been employed in an effort to blunt the spread of disease. Kanu (2020) closely examined data obtained in Delaware to characterize the impact of these interventions. Delaware reported its first case in March 2020. They began case investigations immediately and issued a stay-at-home order on March 24. A mask mandate took effect on April 28 and contact tracing efforts began on May 12. In Kanu's assessment, disease incidence, hospitalization, and mortality were examined over the period spanning March to June. Results demonstrated that the incidence of COVID-19, hospitalizations, and mortality decreased by 82%, 88%, and 100%, respectively from late April to June, aligned with the mask mandate and contact tracing. The investigator concluded that when combined, available mitigation strategies can reduce the incidence of COVID-19 and associated mortality. Furthermore, he stated that it is doubtful that, if employed alone, any one single approach was likely to be effective (Kanu, 2020).

Self-Assessment Quiz Question #8

Since Julia had tested positive for COVID-19, Henry needed to report the case to the County Health Department. Which of the following are core public health objectives designed to curb the spread of ID?

a. Identify people that infected individuals have come into contact with.
b. Isolate all known contacts that have been potentially infected.
c. Provide support for suspected contacts.
d. All of the above.

Self-Assessment Quiz Question #9

Ideally, the County Health Department would employ a comprehensive contact tracing program to investigate each identified case of COVID-19 within their jurisdiction. Regarding an effective contact tracing program, which of the following elements is *false*?

a. Time is of the essence; effective tracing should be rapid in cases of diseases that can spread asymptomatically.
b. Procedures must be rigid to ensure consistent data collection.
c. Community engagement can facilitate effective contact tracing efforts.
d. If capacity permits, possible contacts as well as certain contacts should be investigated.

Herd immunity

If the point can be reached where a high percentage of a population is immune to an ID (either through vaccination or the development of immunity via previous exposure to the pathogen), it becomes difficult for the ID to spread. This obstacle is a result of there being a limited number of susceptible individuals. As an example, if a person with measles is surrounded by others who are immune to the virus, the disease cannot be easily transmitted, and then dissipates as the infected person recovers. This is called herd or community immunity. This mode of protection is beneficial since it provides a defense for vulnerable people, such as newborns, the elderly, or individuals too ill to be vaccinated. It is critical to note that herd immunity is not a panacea for all vaccine-preventable diseases. An example is tetanus; while tetanus is classified as an ID, it is not contagious, rather it enters the body as environmental bacterial. Regardless of the level of tetanus vaccination in a community, nonimmunized people remain fully susceptible to the disease. The extent of protection in a community required for herd immunity varies by pathogen. While it may ultimately be effective, herd immunity does not provide absolute safety from infection (Immunisation Coalition, n.d.).

If COVID-19 is ever stopped, it will likely be as a result of the attainment of herd immunity. As with any infection, there are three ways to achieve that endpoint: a large percentage of the population gets infected; most people receive an effective vaccine for the coronavirus; or a combination of both. There are at least three scenarios that may lead to herd immunity for COVID-19 (D'Souza & Dowdy, 2020):

1. Worst case. This could occur if no mitigation strategies were employed, such as social distancing, wearing of face masks, or proper sanitation to slow the spread of disease. The virus is adequately virulent to impact millions of people in just a few months, conferring extensive immunity. As a result, this situation would likely overwhelm health systems and result in substantial mortality.
2. Perhaps ideally, mitigation strategies are employed to maintain or reduce current levels of infection until an efficacious vaccine is widely available.
3. Most likely, realities will dictate that a compromise posture is employed where the rates of infections rise and fall and mitigation approaches are loosened as infection rates decrease and tightened as needed to counter increases in disease until an efficacious vaccine is widely available (D'Souza & Dowdy, 2020).

Preparing for EID

The avian influenza (H5N1) virus made its first known transmission from poultry to humans in 1997, resulting in the death of six of 18 infected Hong Kong citizens. This experience spurred the US government and WHO to increase their preparedness for a pandemic. Since that time, the world has experienced instances of novel influenza A viruses, including avian and swine flu. While not nearly at the level of the COVID-19 pandemic, these experiences made it evident that a pandemic could place enormous demands on public health systems and essential community service industries (CDC, 2017d). Although major planning efforts are focused on influenza pandemics, the key concepts are applicable to most any EID.

HHS: 2005 pandemic influenza Plan

As described previously, pandemics caused by EID are not novel. Governments have had time to prepare and, to their credit, efforts have been made to prepare for pandemic emergencies.

While on vacation in the summer of 2005, President George W. Bush began reading a book chronicling the 1918 flu pandemic "The Great Influenza." When he returned to Washington, he gave the book to his National Security Advisor, stating, "This happens every 100 years. We need a national strategy." From this was born a plan to best manage a pandemic. This guide described global warning systems, funding for rapid vaccine development technology, and a national stockpile containing therapeutic drug products, masks, and ventilators. In order to design the strategy, the government conducted cabinet-level exercises (Mosk, 2020).

A total of $7 billion was allocated for setting up the plan. Cabinet secretaries urged their staff to participate and a website (www.pandemicflu.gov) was launched, which is still in use. Unfortunately, this high level of engagement was not sustained and, as a result, large parts of the plan were not completed and, in some cases, elements were abandoned in favor of new, emerging crises. With the passing of time, it became difficult to justify the necessary funding and staffing levels. Nonetheless, comments made by President Bush 15 years ago still hold true, and elements of this original work remain and form the basis for the US pandemic response (Mosk, 2020).

In 2005, HHS published its Pandemic Influenza Plan, a 396-page guidebook designed to prevent, control, and mitigate the impacts of high-risk influenza viruses. It was noted that certain strains of influenza had pandemic potential and would require the extensive use of vaccines, diagnostics, and antiviral therapeutics, as well as a variety of preparedness and response efforts (CDC, 2017e).

Progress has been made since this initial publication, necessitating the need for an update. In a 2017 update, progress was reviewed, illustrating both successes as well as gaps in preparedness. Significant achievements include expanded surveillance, increased laboratory capacity, new vaccines, and antiviral resistance monitoring capabilities. Furthermore, extensive coverage is dedicated to mitigation measures that communities and individuals can take to slow the spread of a novel virus starting at the earliest stages of a pandemic (CDC, 2017e).

The intention with the 2017 update was to reflect a comprehensive, system approach to enhancing preparedness and response across various sectors and disciplines. The challenge of creating and maintaining such an extensive plan is to cover most eventualities, while retaining the flexibility to adjust as conditions warrant. The objective of the plan was to allow HHS to quickly respond to a pandemic, while at the same time strengthening their response to seasonal influenza (CDC, 2017e).

WHO: global influenza strategy 2019–2030

WHO published the *Global Influenza Strategy for 2019–2030* in order to build and enhance global and national preparedness for a pandemic. It was specifically designed to counter the threat of zoonotic influenza while improving the prevention and control of seasonal influenza worldwide. The strategy was intended to unify the global goals and priorities of all member countries (WHO, 2019).

In spite of all of the progress that has been made, WHO acknowledged that critical gaps and challenges remain. They identified the two most urgent needs, which formed the foundation of this long-range planning document (WHO, 2019):

- Current prevention and control tool limitations – there is an urgent need for better mechanisms to prevent, control, and treat influenza.
- Robust national capacities for influenza preparedness and response are essential. It was recognized that influenza programs are able to enhance the core capacities across all areas of public health (WHO, 2019).

Dr. Tedros Adhanom Ghebreyesus, Director General of WHO, summarized the threat by stating (WHO, 2019):

> "The threat of pandemic influenza is ever-present. The ongoing risk of a new influenza virus transmitting from animals to humans and potentially causing a pandemic is real. The question is not if we will have another pandemic, but when. We must be vigilant and prepared – the cost of a major influenza outbreak will far outweigh the price of prevention."

Role of nurses incombating emerging ID

Nurses practicing in settings related to public health have clear roles and responsibilities intended to eliminate the health inequalities present in our society. These responsibilities focus on the critical importance of awareness of self and others, forming the foundation of human relationships. There is a requirement that these health professionals acknowledge that all cultures and populations are not known or understood. Many of the same roles and responsibilities assigned to public health nurses apply to most other nurses practicing in a variety of specialties and settings. All nurses must recognize and understand the impact on health and outcomes of social determinants, to include environment, socioeconomic status, access to care, and availability of transportation and food, as well as many other factors. Poverty, general inequity, and other social determinants clearly contribute to global health issues and their contribution to morbidity and mortality (Edmonson et al., 2017).

Nurses are in an ideal position to carefully evaluate individuals, communities, and the greater population for susceptibilities, advocate for equality and justice, and involve themselves in their communities in order to best address local, national, and even worldwide health problems (Edmonson et al., 2017).

Evidence-based practice! Lam and colleagues (2018) conducted a systematic review of the scientific nursing literature in order to explore nurse preparedness to function in an epidemic event. It is appreciated that nurses are often tasked with providing a frontline response to an outbreak of an ID. With this critical role, it is important that their preparedness for epidemic events is well characterized. In order to conduct this evaluation, Lam and colleagues identified eligible, qualitative published studies, then extracted and synthesized the findings. A total of seven studies describing nurses' experiences and perceptions of epidemic events were selected for evaluation. Upon examination of the resultant data, a total of three interlocking themes were identified: personal resources (individual nurses), workplace resources (healthcare institutions), and situational influences. It was determined that, in order to provide an effective response, additional efforts are needed to enhance and reinforce interplay between these themes. Investigators concluded that these interactions are critical, and that additional research is needed to fully understand and appreciate the dynamic (Lam et al., 2018).

Nursing consideration: It is critical that, in order to enhance nurse preparedness and response to an epidemic event, appropriate training and education is provided for nurses focused on the topic of ID. Furthermore, nursing management needs to ensure that institutional assistance is available to provide support for nurses in the event that an epidemic event occurs (Lam et al., 2018).

Situational management: reactions and overreactions to emerging infections

An EID that reaches the state of pandemic may contribute to a secondary epidemic – one of fear. At the onset, when most people do not know anyone afflicted, they may view the disease in the abstract, minimizing the risk, easily feeling immune. Nonetheless, as the disease spreads and increases in prevalence, anxieties often surge, overwhelming a person's ability to think rationally. This state may result in an overreaction to the situation. So, depending on the phase of an epidemic, outbreaks can present two dueling challenges: both underreaction and overreaction (Klitzman, 2020).

Past epidemics, such as Ebola, HIV/AIDS, and SARS, have provided insights into how humans typically process and manage such situations. Often, individuals will experience both forms of reaction, initially adopting an under-reactive posture and then, based on limited information and accompanying fear, overcompensating, moving them into an over-reactive state. In order to slow down this rapidly swinging pendulum, responses should ideally be rational and evidence-based, not panic-based (Klitzman, 2020).

According to an April 2020 survey conducted by the Pew Research Center (PRC), President Trump's initial management of the coronavirus outbreak was widely criticized, with 65% of Americans stating that he was too slow to take major steps to address threats to the US despite the reporting of disease in other countries (PRC, 2020). Although it is impossible to know President Trump's logic behind his actions, based on the perception of a majority of Americans, this can be classified as an underreaction.

Although not an EID-related event, the Three Mile Island nuclear event, which has never been positively associated with any chronic negative health outcomes, terrified many Americans. The result was often a generalized fear of nuclear power. In this case, people were intently focused on that one incident, not aware of the large number of other nuclear plants that were operating safely. This oversight kept people from realizing that the probability of an accident at any given nuclear facility was very small. Nonetheless, the resultant overreaction was great, with some experts suggesting that this fear kept nuclear power from reaching its potential in the US, instead relying on the dirty and unhealthy combustion of fossil fuels (Oster, 2020).

While some responses to EID will certainly promote safety and save lives, others will impact livelihoods to an extent exceeding their benefit. It is impossible to rationally assess this tradeoff using partial information. What is needed is full-picture data, not anecdotal stories that often fill media reports (Oster, 2020).

Optimistically, the coronavirus pandemic and the wreckage that it leaves behind might motivate societies to learn how to better calibrate between overreactions and underreactions. Proper preparation and evidence-based responses could save valuable time in the case of future epidemics, resulting in better outcomes (Klitzman, 2020).

Nurses can manage human response to EID

According to a 2019 Gallup poll, for the 18th consecutive year, Americans rate nurses as the most ethical and honest among professions. More specifically, 85% of Americans surveyed stated that nurses' ethical standards and honesty are high or very high. To put this in perspective, automobile salespersons, the profession held in lowest esteem, received the same rating from 9% of people surveyed. According to Gallup, nurses have consistently outrated all other professions by a wide margin. For perspective, medical doctors were similarly rated by 65% of individuals (Reinhart, 2020).

Nurses can leverage the high levels of trust that they have earned to act as the voice of reason in unsettled times. Through calm and rational acts, they can help patients sift through the layers of misinformation and provide evidence-based approaches to safely managing a pandemic emergency. In many cases, nurses are the front line in healthcare. Prevention is key, and nurses are ideally situated to convey these critical messages.

At a foundational level, nurses can provide their patients with information describing clear basic hygienic practices. It is critical that such educational topics are evidence-based and not highly controversial. Points for consideration include the following:

- The novel coronavirus, as well as many other pathogenic viruses, is largely thought to spread from person-to-person to those who are in close contact with one another; ideally individuals should try to maintain separation of at least 6 feet to avoid respiratory droplets generated by coughs and sneezes. Virus may also spread by airborne particles generated from talking or screaming. Whichever the source, particles can land in the mouth or nose of people, or in some cases be inhaled into the lungs. As a result, it is critical to wear face coverings and to cover the mouth and nose with a tissue or the interior portion of the arm when coughing or sneezing. Used tissues should be immediately discarded and hands should be thoroughly washed with soap and water or alcohol-based hand sanitizer (containing at least 60% alcohol; HHS, 2020).
- In addition to social distancing and facial covering, handwashing and effective personal hygiene practices are critical to maintaining good health. Individuals should get in the habit of frequently washing their hands. Lastly, it is important to avoid touching eyes, nose, and mouth to avoid self-infection from contaminated hands (HHS, 2020).

Nurses are well positioned to lead the charge against EID by teaching their patients how to not just survive, but to thrive in a far from sterile world, through a collection of low-cost, high-impact practices. If properly executed, nurses can maintain balance in an often-misinformed world, promote proper immunizations, demonstrate sanitation techniques, and contribute to the generation of timely public health guidance.

Case study 4 – phase 2

Three days later, Henry was disturbed to see Julia's telephone number appear on the caller ID. He was not looking forward to spending more time listening to her unproductive ramblings. Nonetheless, he took a deep breath and answered the telephone. While she was still worked up and speaking at a rapid rate, he quickly realized that she had changed her approach to dealing with her diagnosis. She was calling to inform him that she had come to terms with her diagnosis and wanted advice on good practices that she could share with her niece to better protect her from contracting the infection.

Self-Assessment Quiz Question #10

Which of the following suggestions should Henry share with Julia?

a. All people should maintain a distance of at least 6 feet from other individuals.
b. Everyone should wear face coverings, especially when proper distance between people cannot be maintained.
c. People should wash their hands frequently with soap and water.
d. All of the above.

Conclusion

The COVID-19 global pandemic has forced all people, especially nurses, to learn about, manage, and prepare for EID. While many of these ideas are novel for most people, the scourges of ID and resultant pandemics have occurred for millennia. Despite epic advances in

science and medicine, many aspects of EID remain unchanged over time. Despite its long existence, in the past 50 years or so, increased interest in EID has taken hold. In an effort to best understand and manage the risks inherent to EID, large research investments have been made and a number of government organizations have been formed. Many of the drivers of EID, such as climate change and antimicrobial resistance, seem linked to the progress of mankind, as people broaden their geographic footprint and become bigger users of available technology. Although major efforts have eradicated a number of once lethal diseases, for a variety of reasons, some of these maladies continue to recur, significantly contributing to human morbidity and mortality. In addition to the physical detriments attributed to EID, their sheer scale and associated unknowns also greatly impact the social fabric of society, creating a number of secondary problems. The good news is that there are solutions to EID that can be at least partially effective. To enhance efficacy, science must continue to advance, with resultant information effectively and consistently communicated. The keys to making it all work, though, are held by the people. All citizens must work together and follow best practices to help curb the spread of EID. Nurses hold a critical role in the process. In addition to their solid understanding of the science, they are well respected in society. As a result of this special trust, nurses are in an ideal position to communicate to their patients the information needed to best manage an EID. With a bit of effort, nurses are in a position to not only keep their patients healthy, but to help them flourish in the scary, unknown environment associated with a dangerous infectious disease outbreak.

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EMERGING INFECTIOUS DISEASES

Self-Assessment Answers and Rationales

1. The correct answer is B.
Rationale: Antimicrobial Resistance (AMR) is a growing problem that may make previously susceptible bacteria immune to treatment with formerly effective antibiotic therapy regimens.

2. The correct answer is B.
Rationale: Regardless of the level of immunization in a community, the presence of even a small number of unvaccinated individuals creates a level of susceptibility, even to diseases considered eliminated, such as measles in the US. Nonetheless, in order to infect a susceptible person, the virus needs a way to enter the community. In many cases, it is through an unprotected person traveling to a region where that ID is endemic.

3. The correct answer is C.
Rationale: The US expended significant effort and resources to achieve the coveted measles elimination status, as defined by WHO. According to WHO criteria, in order to maintain this status, no measles outbreaks can be sustained for a period greater than 1 year in duration.

4. The correct answer is D.
Rationale: A major driver to the reemergence of some preventable ID is a reduction in the use of immunizations. One reason for this is a growing population of people who refuse to vaccinate themselves and/or their children. In many cases, this is driven by controversial studies linking measles vaccinations and autism.

5. The correct answer is C.
Rationale: Jennifer's mom appears to prescribe to the circulating belief that vaccines can result in the affliction of autism.

6. The correct answer is B.
Rationale: Blame is often a simplification where a person suffering an insult attributes blame to one specific causative element. In reality, actions typically occur when a number of elements combine to create a situation that allows the insult to occur.

7. The correct answer is D.
Rationale: While the interaction was far from ideal, in some cases, clinicians need to work with whatever personalities their patients have. In this case, while he was unable to provide the full level of care that he wanted to, he practiced patience and was thus able to at least deliver the minimum amount of information indicated by the situation.

8. The correct answer is D.
Rationale: Although public health professionals have many responsibilities, in the case of managing an outbreak of ID, their key roles are to identify and provide support to all individuals who may have been infected through exposure to the diagnosed patient. Another objective is to separate those that are potentially infected before they can spread the disease to susceptible people.

9. The correct answer is B.
Rationale: Contact tracing procedures should be flexible to allow modifications as new information emerges. For example, it may become apparent over time that whatever approach initially worked may become unwieldy as case numbers increase.

10. The correct answer is D.
Rationale: In addition to social distancing and facial covering, handwashing and good person hygiene practices are critical to maintaining good health in the face of an epidemic ID. Henry should be pleased that, possibly through his attention to Julia, despite her difficult demeanor, she came to trust him, relying on his advice to counter the spread of COVID-19.

Fundamentals of Mentorship

3 Contact Hours

Release Date: November 22, 2020

Expiration Date: November 25, 2023

Faculty

Michelle Doran, RN, MS, is the lead nurse planner and director of nursing for Elite Health care. She has more than 20 years of experience in nursing, ranging from clinical practice in pediatrics to leadership roles in nursing professional practice, community health, academic medical centers, postacute pediatric rehabilitation, and the health plan industry. She has authored several articles on such topics as ethical decision making for nurses, concussions in the pediatric population, population health, and childhood obesity. She has also worked with health care organizations in successfully achieving Magnet, Baby Friendly, and Transition to Practice accreditation.

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

Barbara Shahinian, BBA, is a freelance writer, editor, and consultant specializing in content and communication strategies for health care professionals and organizations. She previously served as the executive vice president for content and creative for Gannett Healthcare Group, a media company dedicated to the creation and distribution of continuing education content and activities, professional news, and employment opportunities for registered nurses, physical therapists, occupational therapists, and dietitians. In that capacity, she was responsible for companywide strategy, development, and distribution of content and marketing across print, digital, and social media channels. She is the former editor- in-chief of the print magazines and companion websites *Nurse.com, TodayinPT, TodayinOT,* and *Nutrition Dimension*.

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

Reviewer: Allison Saran, RN, CNM, WHNP-BC, is is a certified midwife and women's health nurse practitioner in Sumter, South Carolina. She received her undergraduate degree from Brandeis University and graduated from Yale School of Nursing in 2016. She is currently enjoying taking care of women from menarche to menopause with full scope midwifery and women's health care. She not only completes her professional duties but also takes on extra projects that enhance her patients' experiences such as enacting and coordinating a lending library, working with college campus patient health care referrals, and creating patient resource guides. Her professional interests include autoimmune diseases in pregnancy, contraceptive education access, and family planning counseling.

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

Course overview

The purpose of this program is to introduce the concept of mentorship in nursing and provide contemporary content demonstrating its value to nurses, healthcare organizations, and the nursing profession as a whole. The program contrasts mentoring with other forms of onboarding and orienting nurses who are new to their roles; discusses the benefits to nurses in partnering in mentored relationships through every phase of their careers, from novice nurse through seasoned professional in clinical or nursing leadership roles; and examines personal and professional characteristics that support high-quality relationships between nurses who mentor and those who are mentored.

Learning objectives

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

- Distinguish among the roles of preceptor, mentor and coach.
- Understand the benefits of mentoring to organizations, mentors, and mentees.
- Recognize the dynamics of mentoring and mentored relationships.
- Evaluate the characteristics of high-quality mentored relationships

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

Elite, 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, New Mexico, South Carolina, or West Virginia, your successful completion results will be automatically reported for you.

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

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Activity director

Lisa Simani, MS, APRN, ACNP, Nurse Planner

Disclosures

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

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Course verification

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

INTRODUCTION

Famed poet Ralph Waldo Emerson once said, "Our chief want in life is someone who will make us do what we can." In our professional lives, that someone is a mentor – a trusted teacher, confidant, and guide who helps us realize what we can accomplish and leads us to our potential.

Mentors have long held a powerful place in nursing practice, ensuring that the wisdom behind the art and science of the profession is preserved between generations of nurses. Yet mentorship – the practice of mentoring and being mentored – involves more than the passing of knowledge; it offers transformational opportunities to become our best professional selves. This course explores the fundamentals of mentorship, offering insight into a phenomenon that supports and strengthens our development as professionals, motivates us to expand our capacities, and inspires us to reach our aspirations – in other words, to help us do all that we can.

BACKGROUND

Mentoring has a long-honored history rooted in Greek mythology. The Odyssey, Homer's legendary account of the Trojan War, introduced the character Mentor. As the story's protagonist, Odysseus, left for what would become 20 years of wartime service, he entrusted his friend and advisor Mentor with the upbringing of his son Telemachus (Barondess, 1995, as cited in Henry-Noel, 2019). Mentor's responsibilities for Telemachus ranged from overseeing the boy's care and education, to, as described by Barondess, "the shaping of his character, the wisdom of his decisions, and the clarity and steadfastness of his purpose" (p. 3) in his transition from boy to man.

Historically, Mentor's responsibilities have served as the mainstay of our understanding of the concepts of mentoring and mentored relationships. The teaching, counseling, sponsoring, role modeling, and character shaping that Mentor epitomized remain as indispensable to our grasp of what it means to mentor and be mentored today as it has for centuries.

Industries of all types, including health care, have long employed elements of mentorship to support the development of inexperienced workers who were new to professions or positions. Medicine, for example, built the foundation of the education and professional development of physicians, particularly surgeons, on apprenticeship, in which seasoned practitioners shared knowledge and acumen with less advanced colleagues. In the late 19th century, the apprenticeship model, which itself is based on the mentorship concept of passing knowledge and wisdom from the experienced to the inexperienced, was incorporated into a medical training process that relies on a hierarchical, rank-based structure; experiential learning; and progressive responsibility – a system that continues today (Platz & Hyman, 2013, as cited in Gupta et al., 2020).

In nursing, mentorship is as old as the profession itself. For all the credit granted Florence Nightingale as the founder of modern nursing, she was also a pioneering health care statistician who was mentored by a renowned epidemiologist (Hammer, 2020). In coordinating nurses for service in the Crimean War, she was additionally guided by a British member of Parliament who recruited her for the war effort (Jacobs, 2018). Nightingale, in turn, would go on to nurture the development of many would-be and fledgling nurses long after her founding work in the war; she routinely followed up with students at the close of their first year of training (Nightingale Society, n.d.). Other prominent nurses who followed Nightingale's lead would inspire a long line of nursing educators and practitioners to apply their experiences as both mentees and mentors to the development of professional nurses.

Historical use of mentoring in nurse training has not, however, translated to formal structures or processes for mentorship despite evidence that mentoring benefits the profession (Africa, 2017; Jakubik, et al., 2017). Highlighted as a best practice for its positive association with job satisfaction and retention (Schroyer et al., 2016), mentoring within nursing nevertheless falls short of the formality, standardization, and structure that defines the process in other professions (Jakubik et al., 2016).

In contemporary nursing practice, mentoring's contribution to guiding and fulfilling nurse potential has received heightened attention. During an era in which demand for nurses exceeds supply, health care organizations have looked for cost-effective and efficient means to reduce high turnover rates among nurses, especially new graduate nurses in their first year of practice (Chant & Westendorf, 2019; Hofler & Thomas, 2016). To facilitate retention among newly licensed nurses and support their ongoing clinical and professional development, some organizations have implemented structured models, commonly known as transition-to-practice (TTP) programs, also called nurse residency programs (NRPs). Evidence-based and relationship-centric, these programs supplement traditional new hire orientation processes by building a sound foundation and an enduring infrastructure for new nurses' professional development, as well as the progression of experienced nurses who transition to new specialties (Hall et al., 2019). Mentoring is counted among the crucial components of TTP programs (Africa, 2017; Spector et al., 2017).

DEFINITIONS

Despite general understanding of the term *mentoring*, inconsistent definitions and use of the term lead to confusion and impede progress in the creation and maintenance of mentored relationships (Jacobs, 2018). Within the nursing literature, authors use common expressions and phrases to describe mentoring such as *professional relationship, experienced nurse paired with a less experienced nurse, focused on professional growth and development, guidance and feedback, trusting relationship, role modeling, holistic approach, long-term career development, and development-driven relationship* (American Nurses Credentialing Center, 2020), Jakubik et al., 2016; Kowalski, 2019). These terms capture aspects of the process of mentoring; but used on their own to describe mentorship, they risk weakening the full scope of the process and its contribution to the development of nursing practice and expertise. Other authors employ words and phrases when discussing mentoring that are aligned more with the role of a preceptor than mentor (Kowalski, 2019). Mentoring also is equated with common terms associated with new nurses' acclimation to practice or experienced nurses' switch to a new role such as onboarding, TPP, nurse residency, orientation, precepting and coaching. Understanding the differences between these terms reveals the capacity of mentoring to span each phase of a nurse's career, from novice to expert (Kowalski, 2019),

Onboarding

When nurses who are new to positions, departments, or employers learn details of their job – the location of the cafeteria or supply closet, for example, or how to obtain an employee badge – they participate in an organizational socialization process commonly known as "onboarding."

Onboarding helps nurses who are unaccustomed to new surroundings to adjust to the unfamiliar environment. It involves some one-and-done learning about elements of the physical environment such as location of the staff break room and organizational policies such as break rooms exist for staff only, but it also includes ongoing acclimation to the culture of the organization or department; for example, nurses clean up after themselves in the break room.

A lack of socialization, or assistance with adapting to an organization's cultural norms, contributes to stress and dissatisfaction among nurses, particularly newly licensed nurses who feel unprepared to meet the complicated demands of patient care responsibilities (Gazaway et al., 2019; Shatto et al., 2016). In the complex health care environment, novice nurses frequently struggle not only with mastering clinical skills and avoiding patient care errors but also with professional and social issues involving the clarity of their role and social acceptance among their peers (Frogeli et al., 2019). Without an onboarding process that fosters feelings of welcome, belonging, and engagement, many fledgling nurses leave the profession (Gardiner & Sheen, 2016; Gazaway et al., 2019). Organizational commitment to facilitating nurses' work adjustment by acclimating new hires into the culture of an organization – from their date of hire and throughout the onboarding process – contributes to the retention of qualified nurses (Kurnat-Thoms et al., 2017).

A progressive activity that shepherds inexperienced nurses through all phases of their initial on-the-job training, onboarding acts as an umbrella covering specialized elements of the adjustment of novice nurses to their new roles such as leader of an orientation program or a preceptor.

In some organizations, onboarding evolves informally; in others, it follows a formal structure. In the case of experienced nurses who transition to a new organization or role, onboarding can last a matter of weeks. For novice nurses, the onboarding process may require many months before they gain confidence and competence in their organization's culture, their role identity, and their professional and clinical responsibilities (Jakubik et al., 2017).

Evidence-based practice! A structured onboarding intervention developed by a 187-bed community hospital to address turnover rates in new nurse hires included a buddy-system approach.

Orientation

A successful orientation process overcomes common barriers to new nurse learning – everything from not knowing how to access a medication dispensing system or the norms of shift handover to experienced nurses' unrealistic expectation of neophytes' immediate independence in clinical practice – any of which can cause novice nurses to feel frustrated, overwhelmed, and dissatisfied in their roles. Supported by the American Nurses Association (ANA;, 2015), orientation programs aim to ensure that beginning nurses have the knowledge, tools, and skills they need to safely and independently practice. They seek to promote nurses' job satisfaction, an indicator of their intent to stay in the profession (De Simone et al., 2017), and avert the negative consequences of stress, fatigue, and role ambiguity common among novices, which can lead to patient safety events (Hofler & Thomas, 2016).

Health care organizations provide structured or partially structured orientation programs that characteristically combine classroom and self-paced instruction with skills-focused learning directed by an assigned preceptor (Jakubic et al., 2017). Classroom activities typically include learning about departments within the organization and organizationwide policies and programs – from the introduction of human resource guidelines and resources to training in use of the organization's electronic medical records system (Kroning, 2017).

Depending on the experience level of the nurse and the complexity of the care needs of the patient population, the duration of an orientation program may last days, weeks, or many months (Jakubic et al., 2017). For example, an experienced nurse transitioning from one department or specialty to another within the same organization may require little in the way of organizational orientation and only days of acclimation to the new department, followed by weeks of directed learning in the new specialty. The same nurse transferring to a different organization within their own specialty will require days or weeks of initiation to the new organization's ways of operating. Orientation of inexperienced nurses, on the other hand, initially may last 2 to 3 months in departments with patients populations requiring fewer complicated nursing skills such as medical-surgical departments, but up to 18 months in departments treating highly complex patients such as critical or intensive care (Jakubic et al., 2017).

Precepting

The orientation of novice nurses includes a component that seeks to ensure their competent clinical practice. Precepting fulfills this mission by pairing a novice nurse with an experienced nurse (preceptor) for the purpose of assessing and advancing the inexperienced nurse's competency development.

Precepting emphasizes the teaching-learning process; it centers on instruction and the assessment of competency for an identified skill set and typically includes a formal evaluation (Blevins, 2016). Preceptors are usually assigned to work with newly licensed nurses, student nurses, or nurses new to a specialty or department to achieve specific performance goals within a specific period of time, usually the duration of an established orientation program (Kowalski, 2019). Inexperienced nurses may work alongside more than one preceptor during the course of their orientation.

As nurses with proven clinical competency, preceptors work with inexperienced nurses at the bedside, overseeing and evaluating the newcomers' advancement in clinical proficiency. Before assignment to a precepting role, preceptors must have demonstrated a level of independent performance that establishes accountability and integrates such skills as clinical and ethical reasoning and judgment, critical thinking, problem solving, decision making, communication, and confidence (Ulrich, 2019), usually developed after at least 2 years of relevant clinical experience (Blevins, 2016).

For newly licensed nurses in particular, preceptors bridge a theory-knowledge gap between a nursing student's academic preparation and actual clinical practice (Lalonde & Hall, 2017). They provide hands-on direction for mastering distinct performance goals. Preceptors guide, advise, instruct, and provide feedback on task performance and completion; but they also strengthen, through role modeling, the inexperienced nurse's ability to organize and prioritize patient care activities such as managing patient load, and work as part of a team. In this way, the precepting process nurtures new hires' communication and cooperation skills; and it establishes a support network that reduces novices' stress and fosters a sense of belonging, which contributes to the socialization of novices to the culture of organizations and departments (Kowalski, 2019; Walsh, 2018).

Nursing consideration: The word Mentor and its meaning are often used interchangeably with preceptor, but there are clear distinctions. The preceptor role is focused on clinical mastery and is typically established for a defined time frame. The role of a mentor is to focus on professional growth and career development, and the relationship is more lasting.

TTP and nurse residency

A structured form of onboarding, TTP programs emerged from recognition of the need to standardize the socialization and clinical and professional development of novice nurses (Africa, 2017; Goode et al., 2016; Jakubic et al., 2017). Despite the aims of orientation and preceptor programs to successfully transition new nurses into competent, independent clinicians, it has been demonstrated that the academic program does not adequately prepare new nurses to manage the complex, demanding health care environment (Chant & Westendorf, 2019). TTP programs provide evidence-based infrastructure for immersing new nurses in organizational culture and developing clinical competency. Through formal structures and processes, they seek to lessen their stress, raise their job satisfaction, and reduce their turnover while simultaneously improving the quality and safety of their clinical practice and, ultimately, patient outcomes (Africa, 2017; Goode et al., 2016).

Nurse residency is a TTP program recommended by the National Academy of Medicine's (formerly the Institute of Medicine; 2010) seminal Future of Nursing report. While NRPs incorporate the orientation and precepting phases of new nurse training, they expand these segments of onboarding by providing a formal, structured method of acclimation, relationship-building, and clinical skill development. NRPs include evidenced-based curriculum and clinical immersion, and that begins during or following orientation and typically lasts between 6 and 18 months (Goode, 2016; Jakubic et al., 2017). Some organizations develop their own NRPs while others partner with schools of nursing, causing variability among program standards (Chant & Westerndorf, 2019). Inconsistencies among programs has spurred recommendations for accreditation of all NRP (Goode, 2016; Pokomy, 2018).

Evidence-based practice! Studies have demonstrated a positive association between mentoring and the transition to practice of new graduate nurses participating in NRPs. Dedicated mentors were found to be as central to the transitioning of new nurses to independent practice as preceptors (Chant & Westendorf, 2019; Cochran, 2017; Williams, 2018).

Coaching

In a broad sense, coaching occurs throughout the onboarding of nurses new to organizations, departments, or roles. For example, coaching – generally, a short-term, task-oriented process of helping others to learn a task and improve their performance (Jakubic et al., 2016) – happens when a human resource professional walks a new hire through completing a required document during their initial orientation or a preceptor encourages a novice in completing care tasks at the bedside.

Unlike precepting, which establishes targets for competency development, coaching inspires others to form their own goals and discover their own solutions. It is a form of guidance that respects and nurtures an individual's natural resourcefulness (Kowalski, 2019). Similar to precepting, however, coaching adopts a formal structure in the context of nurse professional development. One-on-one coaching relationships are prescribed and concentrated on current needs – in other words, a coach is formally assigned to a nurse explicitly to develop particular skills in the nurse's present role (Kowalski, 2019).

A specialized practice that, according to the International Coach Federation (n.d.), intends to amplify personal and professional potential, coaching is frequently used to maximize the capacity of nurse leaders during a singular intervention or as part of other professional development activities (Koratov, 2016). Although coaching can be accomplished using either internal or external facilitators/coaches and has been shown to benefit nurse leaders at all levels (Kowalski, 2020), by and large nurse executives use professionally trained coaches to help them excel in their senior roles (Kowalski, 2019). Executive coaching usually lasts for a defined time period and focuses on specific goals and objectives.

Mentoring

Although the nursing profession has not settled on a single definition of mentoring (Jacobs, 2018), it is generally referred to as a lengthy, multifaceted learning process involving the development of a trusting relationship between an experienced nurse (mentor) and a less experienced nurse (mentee, also called a protégé) for the purpose of contributing to the latter's personal and professional development (Kowalski, 2019). Jakubic and colleagues (2017) distilled mentoring's purpose into support of "lifelong learning, professional advancement, engagement, and succession planning" (p. 150).

Mentored relationships occur between experienced nurses – for example, a nurse with expertise in one specialty or position undertakes a new role is advised by a peer with knowledge in the area, or a nurse manager eyeing a promotion is guided by a nurse administrator. However, the mentoring of clinicians who are new to their careers is not broadly practiced in nursing. Typically, nurse-mentors guide novice nurses in one-on-one, sustained relationships in which the mentor acts as adviser, teacher, and role model for the mentee (Kowalski, 2019). Mentors encourage, challenge, sponsor, and protect mentees; they share

expertise, provide resources, recommend opportunities for learning, offer feedback, advocate on the mentee's behalf, and supply other means of formal and informal support to mentees to positively influence the mentees' career progress (McBride et al., 2017). For their part, mentees gain the opportunity to successfully settle into and grow in their careers by absorbing the wisdom of a seasoned professional (Gruber-Page, 2016; Hale & Phillips, 2019).

Mentoring facilitates onboarding by strengthening inexperienced nurses' socialization to organizations or departments. Mentors clarify cultural norms to which these nurses are unaccustomed and encourage mentees' engagement in activities to stimulate professional growth. For example, a mentor may explain in greater detail the logic behind an organizational process; listen to and advise a mentee who is struggling to feel accepted within a work group; encourage a mentee to join a professional association, participate in a continuing education activity, or serve on a shared governance or quality and safety committee; or challenge a mentee to stretch their critical-thinking skills (Kowalski, 2019). Mentors also contribute to succession planning by ensuring that, as nurses mature as professionals, they become equipped with the skills required for leadership positions (Jakubic et al., 2016).

Nursing consideration: All nurses – regardless of role, specialty, education level, or years of experience – can benefit from mentored relationships; but mentees' needs can vary during the course of their careers. A single, one-on-one mentor likely cannot attend to a mentee's evolving needs over time. Nurses at any stage of professional development can expect to partner with multiple mentors at different times over the trajectory of their careers.

Unlike precepting, mentoring is neither limited to a specified period of time such as the length of orientation or a probationary period nor is it focused on the development of clinical competence (although mentors can share their clinical expertise with mentees). Similarly, although the mentoring process may include aspects of coaching, it is not restricted to interventions designed to achieve a particular goal, as is coaching. Rather, mentorship creates, nurtures, and sustains relationships that emphasize career progression over time; and these relationships last as long as mentors and mentees continue to find value in their connection or mentees feel they have gained a sufficient level of confidence and independence (Goodyear & Goodyear, 2018).

Mentored relationships can emerge spontaneously during the course of a nurse's career, or they can occur through structured programs in which mentors and mentees are paired and guided through an established onboarding process (Chant & Westendorf, 2019). For example, one newly licensed nurse participating in an NRP may be intentionally paired with a designated mentor for the program's duration, whereas another novice nurse may form an organic relationship with a mentor during a standard orientation period that continues for years. A preceptor may independently expand their role to create a mentored relationship that supplements a mentee's clinical skill development with career guidance, or an established nurse leader may find value in both serving as a mentor and seeking the support and counsel of a nonnurse executive. In all cases mentoring serves not as a single stitch point in a nurse's career but rather as a lengthy thread that weaves throughout the nurse's professional development.

Self-Assessment Quiz Question #1

The onboarding of nurses who are new to roles, positions, or departments includes all of the following activities EXCEPT:
a. Learning about physical elements of the new environment.
b. Gaining a sense of belonging and acceptance among peers.
c. Demonstrating aptitude in a clinical skill on the date of hire.
d. Understanding the reasons behind an organizational process.

Self-Assessment Quiz Question #2

Which of the following is an example of a way in which a mentor supports a novice nurse?
a. Evaluating the clinical competence of the nurse at the bedside.
b. Encouraging the nurse to participate on a quality and safety committee.
c. Devising a short-term plan to improve a particular clinical skill set.
d. Overseeing classroom instruction during the orientation period.

Self-Assessment Quiz Question #3

Novice nurses who are intentionally paired with a mentor in an NRP can expect their affiliation with their mentor to last as long as:
a. The duration of the program, ranging between 6 and 18 months.
b. The duration of the orientation segment of the program.
c. The duration of the precepting segment of the program.
d. The nurse and the mentor find value in the relationship.

THE VALUE OF MENTORSHIP IN NURSING

Evidence shows the value of mentorship for the organizations, mentors, and mentees alike. Consider these demonstrated benefits:

For organizations

Of the many challenges facing the nursing profession in the 21st century, the retention of nurses ranks among the most pressing (Halter et al., 2017). As baby boomer nurses retire at an accelerating rate, a younger cohort of licensed professionals is needed to replace them not only in number but also in knowledge and expertise (Buerhaus et al., 2017). Yet the nursing profession struggles to recruit and retain enough nurses to meet the ever-increasing demand for health care services (Halter et al., 2017; Schroyer, 2016).

High rates of turnover among nurses, particularly within their first year of practice, have been well documented, along with a litany of reasons nurses leave the profession, including the so-called reality shock experienced by newly licensed nurses as they enter into practice feeling unprepared to meet the demands of heavy workloads and complex patient care (Schroyer et al., 2016). Windey and colleagues (as cited by Cochran, 2017) estimated between 35% and 61% of newly licensed nurses leave their positions within their first year of employment. Low retention of nurses, an outcome of job dissatisfaction, threatens to destabilize the nursing workforce and lessen continuity and quality of care (Silvestre et al., 2017). Nurse turnover negatively impacts the operating budgets of health care organizations as well (Kurnat-Thoma et al., 2017). To replace a nurse who leaves the profession, organizations often spend more than the departing nurse's entire salary (Blegen et al., 2017). Recruitment and orientation costs range between $60,000 and $96,000 per hire (Cline et al., 2017; Silvestre et al., 2017).

Structured mentoring programs incorporated during orientation or other points in a novice nurse's transition to practice have been found to improve job satisfaction and retention (ANCC, 2019; Chant & Westendorf, 2019; Cochran, 2017). Schroyer and colleagues (2016), for instance, examined the impact of a mentoring intervention among critical care nurses. The intervention, which targeted new graduate, re-entry, and new-to-specialty nurses, reported a 91% retention rate among nurses in a mentored group compared with 66% in a nonmentored group. In their published work on the mentoring of newly licensed nurses, Jones (2017) and Horner (n.d.)linked increased job satisfaction to intent to stay. Jones's results were based on a pilot study with emergency nurses, and Horner's work included nurse practitioners. Glassman's (2020) quality improvement project involving mentoring new nurses in an intensive care until also connected mentoring to retention.

Evidence also demonstrates the capacity of TTP programs to cost effectively raise job satisfaction among new nurses and bolster their intent to stay in the profession (Africa, 2017; Jakubic et al., 2017). In particular, NRPs that incorporate mentored relationships reduce dissatisfaction and turnover among novice nurses (Chant & Westendorf, 2019; Cochran, 2017). In a retrospective study of more than 3,000

newly licensed nurses enrolled in TPP programs, Williams and colleagues (2018) identified the positive influence of mentoring on practice transition, professional development, stress management, and turnover intention.

Nursing consideration: Mentorship should be a part of all nurses' professional practice. Nurses across specialties, having different education preparation, and at varying stages of their careers, can all benefit from having mentors. Seasoned nurses also benefit from mentoring.

Even absent formal structure, the creation of a mentoring culture within nursing departments helps retain nursing talent; but defined programs produce the bonus benefits of heightening nurse engagement and building a vigorous, productive nurse cohort (Miller et al., 2020). Mentoring's association with satisfaction and engagement among nurses may translate into improvement in patient outcomes and satisfaction as well (Goodyear & Goodyear, 2018). Additionally, the mentoring of nurses at any phase of their professional development contributes to succession planning. Considering the impending brain drain of nursing expertise resulting from an unprecedented number of nurse retirements (Buerhaus et al., 2107), mentoring serves as a critical tool to preserve nursing knowledge and ensure a pipeline of future nurse leaders (Jakubic et al., 2016b).

For mentors

The nature of mentoring evokes value for mentees as the recipients of knowledge transfer and support, but mentors realize benefits as well. Goodyear and Goodyear (2018) identified four ways in which mentors derive value from participating in mentored relationships:

1. Positive impact: the gratification gained by influencing the personal and professional growth of mentees.
2. Personal satisfaction: the rewarding sense of giving back to the nursing community.
3. Professional contribution: the aspirational objective of advancing improvements in their organizations.
4. Career advancement: the progression of their own careers through the acquisition of knowledge and skills, higher salaries, opportunities for promotion, and enhanced collegial respect.

Evidence-based practice! It is common for nurses with clinical competence or seniority to be propelled into nurse manager and other leadership positions feeling ill-equipped to handle the new role. In the case of nurse managers, inadequate preparation, coupled with the heavy demands of the role, have been shown to contribute to burnout and turnover. One statewide program addressed this gap in a year-long mentoring program that paired new nurse leaders with practiced managers, beginners in nursing research with expert researchers, and chief nursing officers with veteran executives. In five cohorts of these pairings since the program's inception, both mentors and mentees reported experiencing personal and professional growth as a direct result of their mentored relationships.

A similarly evidence-based project that joined two hospitals in a formal peer mentorship program dedicated to nurse managers improved job satisfaction and intent to stay among the program participants. Year-over-year turnover of nurse managers enrolled in the program fell from 25.8% to 11.9% (Roth & Whitehead, 2019; Vitale, 2018; Warshawsky

As much as mentors teach, they also learn. Over the course of mentored relationships, they improve their problem-solving, decision-making, and communication skills; fine-tune their leadership capabilities; and enrich their professional relationships (Schroyer, 2016). Their motivation to contribute to the professional development of a less experienced colleague generally spurs a parallel motivation to keep up with their own development, not only as effective mentors but also as facilitators of positive professional and organizational change (Gruber-Page, 2016).

Nurse managers and other leaders are often called upon to serve as mentors. Whether they volunteer for or are assigned a mentoring role, these leaders may recall their own experiences as mentees and appreciate the opportunity to continue nursing's long tradition of passing knowledge and expertise to the next generation of expert practitioners.

Evidence-based practice! Graduates of master's level prelicensure clinical nurse leader programs participating in a qualitative study of mentoring practices reported that their relationships with multiple mentors during their first year of practice improved their confidence

For mentees

Commenting on the difference-making potential of mentorship, Gruber-Page (2016) stated, "To be someone's mentor is an honor, and to be mentored is a gift." As recipients of that gift, nurse-mentees are the beneficiaries of the profession's brain trust. Mentees draw value from this wisdom transfer in a variety of ways – from establishing improved interpersonal and professional relationships and heightened commitment to teamwork (Jacobs, 2018; Schroyer, 2016) to engagement in a healthy, supportive workplace that is free of bullying or other negative behaviors (Goodyear & Goodyear, 2018).

In a series of articles, Jakubic, Eliades, and colleagues summarized the benefits mentees experience in several categories:

Welcoming and Belonging
Used as part of an onboarding process, mentoring helps ensure novice nurses are greeted with a welcoming atmosphere that tempers their feelings of confusion or isolation. Welcoming contributes to the socialization of nurses new to organizations, departments, or specialties as they become familiar with the workplace and its culture. Mentors facilitate welcoming during the orientation process by introducing mentees to their colleagues, explaining social or cultural norms, describing expectations and opportunities, and suggesting ways to engage in the workplace. As they adapt to these norms and expectations, mentees assimilate into organizational culture and derive a sense of belonging; they feel involved, included, and valued (Jakubic et al., 2016a).

Career Optimism
The reality shock that confronts novice nurses is disheartening and can lead to self-doubt, misgivings about career choice, and uncertainty about the future. When mentors act as role models, provide encouragement, and offer enthusiasm and assurance about mentees' career possibilities, the mentees gain a sense of optimism about their future career path. They become hopeful in their career outlook and engaged in their professional development (Jakubic et al., 2016b).

Competence
Confidence supports competence and vice versa. Novice nurses who feel self-assured in their clinical knowledge and skills demonstrate aptitude, and validation of that know-how stimulates further confidence.

When mentors teach mentees about their jobs and organizations, they facilitate mentees's skill acquisition; as they reassure, coach, validate, and offer feedback on mentees' performance of those skills, mentees gain the self-assurance and self-reliance needed to demonstrate clinical proficiency. Mentees benefit from the resources, tools, encouragement, and opportunities for engagement that mentors provide by developing confidence in their capacity to meet or exceed the expectations of their role (Eliades et al., 2016).

Professional Growth
Guided by mentors, mentees develop and improve the essential skills of professional behavior needed for career advancement, including critical-thinking, problem-solving, and decision-making skills; communication skills; and resilience. Learning by the example of their mentor's professionalism, they become increasingly confident in their ability to pursue new challenges and progress along their career path (Jakubic et al., 2016c).

Security
Novice nurses often feel ill-equipped on their own to understand and overcome common workplace challenges such as relationships conflicts and the power struggles involved in organizational politics. Mentoring fosters a safe, nonjudgmental environment in which mentees can work through professional issues. Mentees are more apt to overcome workplace obstacles when they view a mentor working on their behalf by facilitating conflict resolution, affording the mentee the benefit of the doubt when conflicts arise, publicly praising the mentee's achievements, offering feedback on the mentee's shortcomings, and recommending or modeling alternative action. Mentoring offers mentees the security of knowing someone cares about them, their efforts, and their success (Jakubic et al., 2016d).

Leadership Readiness
Mentoring helps to prepare nurses for the rigors of supervisory and managerial roles and beyond. Nurses in clinical leadership positions must demonstrate not only clinical proficiency but also overseeing, providing direction for, and improving clinical services. Mentees enjoy an advantage over their nonmentored colleagues in that they directly profit from leadership knowledge and opportunities passed down or facilitated by their mentors. Having observed leadership philosophy and behavior in their mentors, they become more knowledgeable and therefore better equipped to take on the challenges and risks of leadership (Eliades et al., 2017).

Self-Assessment Quiz Question #4

An organization that invests in a structured mentoring program can experience:
a. Steady rates of patient satisfaction and positive patient outcomes.
b. Increased job satisfaction and reduced turnover among new nurse hires.
c. Increased engagement among nurses but no change in retention costs.
d. Reduced retention costs but reduced patient satisfaction scores.

Self-Assessment Quiz Question #5

Nurses who serve as mentors experience all of the following advantages EXCEPT?
a. Satisfaction derived from directing the career path of a fellow nurse.
b. Satisfaction derived from giving back to the nursing profession.
c. Increased motivation to attend to their own professional development.
d. Improved problem-solving, decision-making, and communication skills.

Self-Assessment Quiz Question #6

Mentors help their mentees develop a sense of security by:
a. Taking the mentees' side when peer-to-peer conflicts or power struggles arise.
b. Creating a nonjudgmental space for mentees to work through professional issues.
c. Ensuring novice nurses are protected from reduction in force initiatives.
d. Securing new positions for mentees who are unsuccessful in their current roles.

MENTORSHIP MODELS

Benner's (1982) influential novice-to-expert continuum is one of the most often cited theories upon which the contemporary practice of mentoring is based (Schroyer, 2016). Benner theorized that new graduate nurses progress from beginners to higher levels of proficiency as they acquire on-the-job education and experience. Over time this progression leads to an expert level. Mentoring earns a place in that evolution, particularly in a nurse's novice stage, by nurturing knowledge and experience acquired in the workplace to a level that ensures optimal patient care and professionalism (Szalmasagi, 2018).

Historically, the nursing profession has employed a variety of mentorship models. Early versions followed a hierarchical structure in which, by virtue of their superior experience, mentors exerted authority over mentees (Jacobs, 2018; McBride et al., 2017). Increasingly, however, the profession views mentoring as a collaborative affiliation between mentors and mentees, who share not only goals within the relationship but also accountability for its success (Miller et al., 2020). Contemporary mentoring models within nursing emphasize a holistic approach and the development of lasting support networks that include multiple and varied mentored partnerships that carry on throughout the length of a nurse's career (McBride et al., 2017).

Mentorship paradigms

Mentorship models in nursing are dynamic; they have changed over time and continue to evolve (Jacobs, 2018), particularly as an emerging body of evidence-based research explores best practices. Grouping mentored relationships by type and summarizing relationship phases provide a general understanding of mentorship paradigms.

Informal vs. Formal
Mentored relationships often develop spontaneously and voluntarily between experienced and inexperienced nurses. Either the mentor or mentee can initiate the relationship, and both parties demonstrate sincere intentions to work together for their mutual best interests, as well as to benefit patients and the profession (Hale & Phillips, 2019). Formal relationships occur when mentors are intentionally paired with mentees, usually during onboarding for newly licensed nurses or nurses who change their specialty or professional role (Hale & Phillips, 2019). Evidence suggests optimal mentored relationships exist when mentees select their mentors organically (Goodyear & Goodyear, 2018); but mentors are more apt to become involved in a mentored relationship when they are assigned to the role as part of a formal onboarding strategy (Roth & Whitehead, 2019).

Dyad vs. Triad
Mentored relationships in nursing have been conventionally characterized as dyads – in other words, an affiliation formed exclusively between two people (mentor and mentee). A variant view advances the concept of mentored relationships occurring within a triad framework involving mentor, mentee, and the workplace. The triad interpretation takes into consideration that employing organizations join mentors and mentees in benefiting from mentored relationships (Jakubic et al., 2016).

Nonreciprocal vs. Reciprocal
Nursing no longer follows an apprenticeship model of nursing education, but remnants of the hierarchy and paternalism associated with the model persist in some present-day mentored relationships (Jacobs, 2018). Hierarchical relationships between mentors and mentees direct power and control to the mentor. One-sided and suggestive of a pecking order, they resemble teacher/student or parent/child

relationships in that the mentor determines what is best for the mentee and the mentee acquiesces to the mentor's wisdom (Jacobs, 2018). Supported by research specific to nursing, a fresh perspective champions reciprocal, nonhierarchical mentorship models that recognize mentors and mentees share the meaning, goals, and responsibilities of their relationship. The objective of reciprocal mentored relationships includes not only bolstering the professional success of mentor and mentee but also engendering a mutual commitment by both parties to contribute to the nursing profession and its body of knowledge (Jacobs, 2018).

Individual vs. Group

One-on-one mentoring requires the investment of time and the dedication of senior nurses to mentees' professional development. Some organizations with formal mentorship programs have foregone one-on-one mentoring in favor of group mentoring, principally in an effort to reduce costs and the overuse of scarce resources (Williams et al., 2018). By and large, structured mentoring in a group format involves a single mentor working with multiple mentees who share common characteristics or goals and who support each other during mentoring activities (Goodyear & Goodyear, 2018).

Nursing consideration: Mentor models have evolved and are dynamic. They can take a wide range of forms ranging from individual to group or formal versus informal, among others. In establishing a mentor

Phases of mentoring

Mentored relationships generally progress through four phases (Goodyear & Goodyear, 2018):

1. Initiation.
2. Cultivation.
3. Separation.
4. Redefinition.

With the exception of time limits imposed by formal orientation programs or NRPs in which mentoring arrangements are included, mentors and mentees move through the phases at their own pace according to their mutual goals and respective needs.

Initiation

This is the preparatory phase in which potential mentors and mentees begin interaction and build rapport. It involves discovery on the part of the mentor (Is the mentee worthy of commitment and the investment of time?) and mentee (Does the mentor have sufficient knowledge and exhibit trustworthiness and other admirable traits?).

Cultivation

The bond between mentors and mentees is fostered by both participants during this stage (also called the negotiating phase). Trust is formed between mentor and mentee, and learning goals and expectations are established. The cultivation stage includes the working phase of the relationship in which mentors provide a variety of forms of formal and informal support to mentees, and mentees absorb knowledge and refine their skills.

Separation

This is the closure phase of the mentor-mentee relationship. It begins when mentees determine that they have achieved a level of independence and autonomy that allows them to move beyond their mentor's assistance. Successful separation occurs when both parties agree the expectations and goals that they jointly set during the initiation phase have been met or exceeded.

Redefinition

In this final phase, mentors and mentees have the opportunity to reflect on their respective experiences in the relationship and redefine its nature. They may choose to continue a connection as peers or even friends (Goodyear & Goodyear, 2018).

Nursing consideration: Mentees are ultimately responsible for identifying and managing their own professional goals. They typically initiate connections with mentors and, ideally, will come to the relationship prepared to discuss their learning

Quality of mentored relationships

Not all mentored relationships will fare well, nor is every nurse suited to be a mentor or mentee. Contextual conditions, the personal characteristics and skills of the participants, and the dynamics of shifting individual and organizational needs influence whether these relationships will flourish.

Conditions

The quality of mentored relationships depends on several factors that are present throughout the phases of mentoring.

Intention

Successful mentored relationships rely on the intentions of both mentors and mentees. Mentors must be sincerely interested in building mentees' confidence and supporting their growth as professionals, and mentees must be equally earnest in their commitment to reaching their professional goals. From the outset of the relationship, the participants should aspire to uphold the best interests not only of each other but also of patients, their organization, and the nursing profession (Hale & Phillips, 2019). Table 1 provides sample questions to ask before entering into a mentored relationship.

Table 1. Self-Reflection: Sample Questions to Ask Before Entering a Mentored Relationship

Mentor	Mentee
Am I genuinely interested in becoming acquainted with the person?	Why do I want to be mentored?
What motivates me to sincerely want to help the person with their professional development?	What are my career aspirations and do I have a plan to reach my goals?
Do I care about the person's well-being?	Am I willing to get to know the person and maintain confidentiality in the relationship?
Do I respect the person, and can I emphasize with them?	Do I respect the person and admire their accomplishments?
Will I make every effort to listen and understand the person's circumstances or point of view?	Can I communicate openly and honestly about my needs?
Am I capable of communicating honestly and keeping criticism constructive?	Do I appreciate feedback, and can I handle criticism?
Am I willing and able to devote time to the relationship?	Am I willing to share my concerns or frustrations and listen to advice?

(ACHE, n.d.; Hale & Phillips, 2019)

Fidelity
Reciprocal trust, acceptance, and respect form the foundation of effective mentored relationships. Mentor-mentee relationships are healthy and productive when shared honesty, understanding, and loyalty fuse to create a familylike bond between mentors and mentees (Hale & Phillips, 2019). Because mentored relationships are person-centric, participants regularly form strong emotional connections to each other and the relationship as a whole (Ragins, 2016). Mentors engender trust by preserving confidentiality and providing a personal and professional safe space in which mentees can air concerns and sort through problems. Mentees create trust when they communicate honestly, protect confidentiality, accept feedback, and respond to their mentor's guidance (Hale & Phillips, 2019).

Frequency
To gain the most from their relationships, mentors and mentees must each be willing to commit time to developing their connection. Relationships take time to mature, and how often mentors and mentees spend time together might have a bearing on the quality of their relationships. Mentors, for example, are typically more effective in their role when they become better acquainted with their mentees over time because of either personal interaction with the mentees or more frequent contact with them (Ziegler et al., 2020).

Proximity
Physical proximity also can influence how mentoring relationships form and develop. Mentors and mentees have a better chance of finding one another naturally when they work in the same organizations, or colleagues or superiors within the organization facilitate a match (Hale & Phillips, 2019). However, nurse-to-nurse mentoring need not occur face to face and so be restricted by location. Technology – phone, email, video chat – enables mentors and mentees to connect regardless of geography. Documentation of a relatively new phenomenon, virtual mentoring (also called e-mentoring or online mentoring), is lacking in nursing practice as well as in nursing education (Clement & Welch, 2018), although virtual models may be practical and cost effective for organizations.

Evidence-based practice! In a study of new graduate nurses in an NRP, those who participated in group mentoring with low frequency of contact with mentors reported higher intention to leave the profession than their colleagues within the group who had more frequent mentor-mentee interaction. Nurses who received high-frequency, one-on-one mentoring benefited from reduced stress and easier transition to practice than their group counterparts. Work schedules were cited as the most common reason for low frequency contacts with mentors, particularly among those who were individually mentored (Williams et al., 2018).

Characteristics

Mentors and mentees might have individual differences that affect the quality of their relationship. They may differ in their emotional maturity, for example, or in their natural levels of patience or empathy. They may find it easy to form attachments with another person, or past experiences may make it challenging for them to form close bonds with others (Ragins, 2016).

Successful relationships between mentors and mentees create sheltered spaces in which the participants' open-mindedness and authenticity promote mutual acceptance, support, and validation (Ragins, 2016). The skills of mentors and mentees can positively or negatively impact the quality of that safe space. Temperament and other character traits of mentors and mentees can strengthen the trust and security of their relationship – or interfere with it.

Mentors and mentees share responsibility for the success of their relationships, but mentors shoulder the heavy burden of role modeling. Mentors set an example of optimal professional behavior by exhibiting competence in leadership, particularly transformational leadership that inspires others to grow into leaders themselves. The ANA (2018) defines several characteristics of transformational leaders in its leadership competency model:

- Adaptability: flexible, collaborative, and open to different ideas.
- Initiative: self-motivated, disciplined, and focused.
- Image: confident, poised, and steady.
- Integrity: credible, trustworthy, and fair.
- Learning capacity: knowledgeable and quick to learn and excel.
- Self-awareness: willing to improve and admit and learn from mistakes.

Table 2 provides additional examples of characteristics and skills that lend themselves to high-quality mentored relationships.

Table 2. Sample Characteristics of Successful Mentors and Mentees

Mentor	Mentee
Active listener. Openminded, nonjudgmental, and empathetic. Honest and patient. Present in the relationship. Authentically cares for the personal and professional well-being of the mentee and the relationship as a whole. Focused on goals and strategies. Offers feedback and keeps criticism constructive. Plays devil's advocate and frames discussion or questions to guide the mentee in finding their own solutions. Acts as a sounding board for ideas and concerns. Provides insights and facilitates opportunities. Advocates for the mentee and cheerleads accomplishments. Active listener. Honest, openminded, nonjudgmental, and empathetic. Reliable. Eager to learn. Able to adapt to changing plans or expectations. Takes initiative. Authentically cares for the mentor and the relationship as a whole. Focused on goals and strategies. Capable of accepting and providing feedback and constructive criticism.	Active listener. Honest, openminded, nonjudgmental, and empathetic. Reliable. Eager to learn. Able to adapt to changing plans or expectations. Takes initiative. Authentically cares for the mentor and the relationship as a whole. Focused on goals and strategies. Capable of accepting and providing feedback and constructive criticism. Takes time for self-reflection.

(ACHE, n.d.)

Self-Assessment Quiz Question #7

Evidence suggests experienced nurses are more likely to participate in mentored relationships when:

a. The mentoring model uses a triad framework involving the mentor, the mentee, and the organization.
b. The mentoring model uses a hierarchical framework that supports a teacher/student dyad.
c. They are chosen to be a mentor by a mentee during a formal orientation process.
d. They are assigned to a mentor role as part of a structured onboarding strategy.

Self-Assessment Quiz Question #8

A lack experienced nurses who are prepared to take on a mentoring role and who can invest the time and attention these relationships need can thwart the implementation of a mentoring program. A method of overcoming this deficiency is:

a. Restructuring the experienced nurse's responsibilities to allow more time for mentoring.
b. Encouraging one-on-one time between mentors and mentees after work hours.
c. Implementing a group mentoring format as part of a structured onboarding strategy.
d. Innovating a mentor sharing arrangement with other organizations.

Self-Assessment Quiz Question #9

Whether they are part of a formal or informal process, mentored relationships progress through several phases. In which phase of mentoring is trust established?

a. Initiation.
b. Cultivation.
c. Separation.
d. Redefinition.

Self-Assessment Quiz Question #10

Which of the following characteristics are among those that identify the leadership capacity of a potential mentor?

a. Flexibility and credibility.
b. Cultural background and values.
c. Age and career optimism.
d. Acquiescence and conviviality.

Barriers

Along with a shortage of mentors with traits suited to a mentoring role and time to invest in mentored relationships, social, organizational, and personal factors also may present obstacles to the relationship's success.

For example, differences between mentors and mentees can enhance their relationships by encouraging new perspectives of or insights into problems or opportunities, but they can also hamper them. Mentors and mentees who create and sustain effective relationships take into account generational, cultural, and other differences that may influence their connection with one another. They then work to accommodate those differences. For example, because the inherent nature of mentoring involves the passing down of years of accumulated knowledge and expertise, nurse-mentors will often belong to an older generation than their mentees, and generational divides are notorious for impeding mutual understanding and communication. Similarly, mentors and mentees may have dissimilar cultural backgrounds, or they may differ in gender, race, sexual orientation, religious affiliation, or in other ways that set their life experiences apart and shape their worldview (ACHE, n.d.).

Organizational dynamics come into play when, for example, the organization's culture does not support mentorship, or burgeoning workloads lessen the quality and frequency of contacts between mentors and mentees. On an individual level, changes in mentees' career objectives, a breakdown in trust in the relationship, or personal issues experienced by either participant outside of the workplace are examples of ways the interaction between mentors and mentees may be altered (Ragins, 2016).

Mentored relationships can overcome such barriers when mentors and mentees recognize setbacks, but affirm their commitment to their relationship despite them. With mutual sensitivity, respect, empathy, and a willingness to learn and adapt, mentors and mentees can sustain a valuable connection that not only meets their mutual goals but also brings out the best in each other.

Case study

Kathleen is a nurse leader at a large medical center. The organization routinely hires new nurse graduates and has adopted several strategic initiatives to promote job satisfaction and retention of new nurses. One of these includes a formal mentor program that pairs new nurses with a seasoned nurse leader following their onboarding and precepted experiences. Kathleen has been identified by her leader as one who is supportive of her team members, places high importance on professional growth and development, and has a positive professional presence among peers and colleagues. Kathleen eagerly agrees to serve as a mentor and is matched with a mentee who recently graduated with a baccalaureate degree in nursing and has successfully completed an extensive transition to practice program to a medical oncology unit.

1. What are some key elements of the mentor-mentee relationship that Kathleen should employ?
   Kathleen should focus on establishing a good relationship with her mentee by asking questions to get to know each other and sharing her background and career trajectory. It would be most helpful to create a mutually agreed upon mentor plan that includes expectations of one another, best ways to communicate and meet (in person, virtual, digital), and what the mentee's goals are. Kathleen can explain her role as a mentor and how that differs from her preceptor's. Once Kathleen assesses her mentee's goals, she can start to think about ways to meet them and offer suggestions and facilitate networking.
2. What are some things that can Kathleen anticipate from her mentee?
   While each individual will bring unique personalities, work styles, and goals, Kathleen should think about where her mentee falls on Benner's novice to expert continuum and the characteristics of the advanced beginner in nursing practice. Kathleen can anticipate that her mentee is likely encountering new experiences in her role as an individual clinician, working with patients and families, being a member of an interprofessional care team, and in navigating her next career steps. Kathleen should keep this in mind as she builds her relationship with her mentee and offers guidance on questions, issues, and opportunities to promote her professional growth.
3. What resources are available to Kathleen as part of a mentor program?
   A formal mentor program should have adopted best practices from the literature and other organizations that have successful programs. For example, the Academy of Medical-Surgical Nurses has developed a comprehensive mentor program with guides and tools that are available for sharing. Agenda templates for meetings, guides for mentors and mentees, evaluation tools, and other resources are free and accessible at https://www.amsn.org/career-development/mentoring The leader who developed the program at Kathleen's organization should provide information and education for all mentors and implement opportunities for checking in, providing feedback, and evaluating satisfaction with the program in meeting its goals for both mentors and mentees.

Conclusion

The transition to practice for nurses – whether they are new to the profession, returning after an absence, or shifting to new roles or organizations – can be fraught with challenges. Newly licensed nurses in particular commonly feel overwhelmed, frustrated, and discouraged by the complexity of patient care and the heavy demands of the health care environment. For all their value in supporting the clinical and professional competence of new nurses, onboarding strategies – including orientation, precepting, and other methods of transitioning nurses to practice – may not alleviate the strain and dissatisfaction felt by novice nurses that leads too many to leave the profession.

Mentorship can fill that gap by adding another layer of support for a nurse's professional development, not only as a novice but at any stage of their career. The character-shaping, wisdom-enhancing, purpose-validating efforts of mentoring ensure not only that the time-honored practice of passing knowledge and expertise from expert to novice continues in nursing; but it also offers opportunity for both nurses and their profession to reach their potential. The literature, from both nursing and other professions, supports mentorship as a best practice and demonstrates that having this type of professional relationship results in job satisfaction, retention, and positive gains in professional growth and development.

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FUNDAMENTALS OF MENTORSHIP

Self-Assessment Answers and Rationales

1. The correct answer is C.
Rationale: Onboarding is an organizational socialization process that helps novice nurses adjust to unfamiliar surroundings and the expectations of their new role. Through onboarding, new nurses learn to navigate the physical environment of their organization and its cultural norms. It is common for experienced nurses to anticipate that a novice nurse will have some ability to demonstrate clinical proficiency from the start, but such an expectation is unrealistic.

2. The correct answer is B.
Rationale: Mentoring, focuses on a nurse's professional development and career advancement. Mentors provide formal and informal means of support to positively influence a nurse's career progress, including encouraging nurses to engage with their colleagues on committees or other activities that stimulate professional growth.

3. The correct answer is D.
Rationale: Whether a mentor is assigned to work with a novice nurse or an affiliation between a mentor and a novice develops spontaneously during any point in the nurse's transition to practice, the mentoring relationship is not restricted by time. If the mentor and mentee continue to find value in their relationship, their pairing can continue beyond the prescribed period of either an NRP or a standard orientation period.

4. The correct answer is B.
Rationale: Research demonstrates that structured mentoring programs included in TPP and other onboarding initiatives lead to improved job satisfaction among new graduate nurses, which lessens their intent to leave the profession. In this way structured mentoring helps organizations avoid the high costs associated with replacing nurses because of turnover. In addition, some evidence suggests a connection between increased job satisfaction experienced among nurses who are mentored and improved patient satisfaction and outcomes.

5. The correct answer is A.
Rationale: Nurse-mentors guide nurse-mentees along the mentees' career paths. Mentors share their own experiences, suggest resources, and facilitate learning opportunities for mentees, but they do not direct or control the mentee's professional development journey.

6. The correct answer is B.
Rationale: The mentor's role is to foster a safe, open-minded space in which the mentee can discuss and deal with workplace challenges such as resolving conflicts with coworkers. A mentor's attentive but nonjudgmental approach can lessen the frustration and isolation that a mentee commonly experiences with workplace obstacles. It encourages the mentee to feel secure in the knowledge that someone cares about them and is committed to helping them overcome barriers to their success.

7. The correct answer is D.
Rationale: Either mentors or mentees can initiate a relationship, but, according to research, optimal mentored relationships occur when mentees organically and informally start the process by selecting their mentors. In structured mentoring programs, however, evidence has shown experienced nurses are more likely to become mentors, not on their own, but when they are assigned to the role. In either case the participants must share a sincere intention to commit to each other and the relationship for it to be successful.

8. The correct answer is C.
Rationale: Group mentoring saves costs and addresses a scarcity of available nurses by using a single mentor who works with multiple mentees. An advantage to group mentoring is that the participants gain support, not only from the mentor, but also from each other.

9. The correct answer is B.
Rationale: The cultivation phase is the workhorse of mentored relationships. In this phase, mentors and mentees have moved beyond building rapport to creating and maintaining trust in the relationship, establishing goals, and setting expectations.

10. The correct answer is A.
Rationale: As role models, mentors should demonstrate and promote leadership competency skills such as adaptability and integrity, which are among the hallmarks of transformational leaders. Although cultural and generational differences between mentors and mentees might challenge communication, mentors of any age or background can successfully model leadership behavior. Effective mentors are cooperative but self-assured in their knowledge. They are friendly and welcoming, but not superficial in their approach; rather, they display genuine interest in and enthusiasm for supporting others in fulfilling their potential.

Hospice and Palliative Care for Healthcare Professionals

5 Contact Hours

Release Date: September 17, 2021

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Faculty

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She is certified by the American Nurses Credentialing Center (ANCC) in nursing professional development; as a nurse executive, advanced, in hospice and palliative care by the Hospice and Palliative Nurses Association (HPNA); and in pediatric critical care by the American Association of Critical Care Nursing (AACN). Her DNP capstone work, *COVID-19 and Hospice Care: Self Care and the Effect on Compassion Fatigue and Patient Outcomes*, focused on the link and challenges between compassion fatigue, self-care, and quality outcomes among hospice clinicians during the COVID- 19 pandemic.

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

Reviewer:
Amisha Parekh de Campos, PhD, MPH, RN, CHPN, is an Assistant Professor at the University of Connecticut School of Nursing and serves on the Leadership Team at Middlesex Health Hospice Program in Connecticut. Dr. Parekh de Campos has worked in hospice and palliative care in various roles including patient care, advocacy, legislation, and academics. Currently, she manages research, quality, and education for the hospice program, which serves approximately 150,000 people in Connecticut. In addition, Dr. Parekh de Campos is working on research and palliative care curriculum development at the University of Connecticut for undergraduate students. She is a Robert Wood Johnson, Future of Nursing Scholar (2017-2020) and Jonas Scholar for Chronic Health (2017-2020). Dr. Parekh de Campos has presented at numerous national conferences and published on palliative care, COVID-19, and advance care planning. Dr. Parekh de Campos is also the recipient of the 2021 Hospice and Palliative Credentialling Center Certified Hospice and Palliative Nurse of the Year, the 2021 Young Investigator Award from the Connecticut Coalition to Improve End-of- Life Care, and the 2019 Hospice and Palliative Nurses Foundation Scholarship.

Amisha Parekh de Campos has disclosed that she has no significant financial or other conflicts of interest pertaining to this course.

Course overview

This course provides an overview of hospice and palliative care and describes care that meets the physical, psychological, social, and spiritual needs of suffering of patients and families. The goal of this course is to provide nurses and other clinicians information on how to care for their dying patients. The course will review theoretical models of the dying process, the psychological and physical symptoms as death approaches, and postmortem care. Lastly, misconceptions and barriers to providing end-of-life care are reviewed.

Learning objectives

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

- Describe the purpose of both hospice and palliative care and how they address life-limiting illness for the patient and family.
- Define and explain the relationship between hospice and palliative care and how they contribute to the improvement of quality of life of patients with life-limiting illness.
- Describe the settings, patient population, and incidence of hospice care delivery in the United States.
- Identify the different levels of hospice care, services provided, and Medicare (CMS) eligibility requirements.
- Discuss the Medicare Hospice Benefit and performance measures required for hospice programs.
- Discuss different types of population-based palliative care.
- Explain the delivery of hospice and palliative care including the support required for patients and families with life-limiting illness.
- Explain post-mortem care and strategies for healthcare teams following the death of a patient.
- Identify misconceptions and barriers to providing hospice and palliative care.
- Discuss professional and educational resources clinicians can provide to support patients and families coping with life-limiting illness as well as healthcare professionals caring for them.

How to receive credit

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

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Activity director

Lisa Simani, MS, APRN, ACNP

Disclosures

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Course verification

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INTRODUCTION

When a patient has a life limiting illness, it affects not only the patient, but the entire family. Palliative care likely originated in Roman times, as members of the community wore a protective cloak named "pallium". Today, palliative care is defined as the protection of and prevention of suffering "through the early identification, correct assessment and treatment of pain and other problems, whether physical, psychosocial or spiritual" (World Health Organization [WHO], 2020).

Palliative care is the overarching, supportive approach that helps seriously ill patients and families address problems and improve their quality of life (Mayo Foundation for Medical Education and Research [MFMER], 2021). Hospice is a type of palliative care, specifically for those that have a terminal disease and life-limiting prognosis. Hospice and palliative care can improve a patient's quality of life by:

- Providing relief from pain and other distressing symptoms such as nausea and fatigue.
- Integrating emotional, psychological, and spiritual aspects of patient care.
- Offering a support system to enhance quality of life as much as possible.
- Offering bereavement and grief counseling to help the family cope during the patient's illness and after death (Livestrong, 2020).

HOSPICE CARE

What is hospice care?

The term hospice dates to medieval times and refers to a place where travelers, some who were sick, found a comfortable place to rest. The first modern hospice was founded by Dame Cicely Saunders in 1967 in England (St. Christopher's, 2021). In 1974, Hospice, Inc., the first hospice in the United States, opened its doors; it was later renamed Connecticut Hospice. Today, according to the National Hospice and Palliative Care Organization (NHPCO), 4,639 hospice agencies operate in the United States (2020). A subset of palliative care, hospice care is for individuals who are facing a serious or life-limiting illness of six (6) months or less and is provided by an interdisciplinary team (IDT) of clinicians. This team provides pain management and emotional and spiritual support that is expressly tailored to the patient's needs and wishes at the end of life (EOL). Hospice care does not end with the patient's death; bereavement and grief support continue for the family for up to 13 months (NHPCO, 2020).

Incidence and distribution of hospice service

To be eligible for hospice, two physicians (including the medical director of the hospice agency) must agree on a patient's terminal diagnosis (NHPCO, 2020). Cancer remains the most common hospice primary diagnosis, while the most common noncancer primary diagnoses are heart and circulatory disorders, followed by dementia. The number and frequency of hospice services in the US have increased during the past decade. The latest statistics show consistent growth of hospice providers in both urban (81%) and rural (19%) areas (Medicare Payment Advisory Commission [MedPAC], 2020). For-profit hospice providers continue to make up the majority of hospice organizations at 70 percent and also represent the majority of growth; 27% are not-for profit and 3% are government owned (NHPCO, 2020). In 2020, it was reported that hospices in the US admitted a total 1.48 million Medicare hospice patients, which represent a 23.9% increase since 2014 (NHPCO, 2020). Of those patients, approximately half identified as female, and the majority (61.4%) of hospice-enrolled patients were 75 years of age or older (NPHCO, 2020).

In hospice and palliative care, 82% of patients were White, followed by African American/ Black (8.2%), Hispanic (6.7%), and Asian/ Pacific Islander (1.8%). Since 2000, hospice services have grown across all racial and ethnic groups, but especially among minority older adults (CAPC, 2021). Despite this growth, disparities still exist because of "cultural or religious beliefs, preferences for end-of-life care, socioeconomic factors, disparities in access to care or information about hospice, and mistrust of the medical system" (MedPAC, 2020, p 335). Because of poor access to disease prevention and detection, along with lower quality curative care, patients from racial and ethnic minorities are often diagnosed with late-stage illness and have worse outcomes (CAPC, 2021). This issue is quite complex, as experts have found that those suffering from advanced illness are also limited by social inequities, "such as paying for expensive medications, reduced access to nutritious foods, transportation, translation services, and safe housing" (CAPC, 2021, p.1). For Black, Hispanic, Latino, American Indian/ Alaska Native (AI/AN) and other persons of color, these barriers are much more common because of "generations of systemic racism; and, as a result, these populations experience significantly worse health outcomes than white Americans" (CAPC, 2021, p.1). Hospice and palliative care organizations and healthcare professionals can help ensure access and awareness to high quality care by providing educational programs, outreach, and by meeting the cultural and language needs of various minority groups within their community.

Social workers are healthcare providers who are the most prepared to advocate for these vulnerable populations and help other healthcare providers ensure equity and access. Social justice, dignity, integrity, and competence are a few of the core values that social workers work towards in their practice with patient and families (CAPC, 2021). The National Association of Social Work's (NASW, 2021) Code of Ethics states that a social worker has the "ethical duty and responsibility to guide practice with clients of various cultures and be able to demonstrate skills in the provision of culturally informed services that empower marginalized individuals and groups" (NASW, 2021). This statement, with regard to social determinants of health (SDOH), equity, and access, means that social workers help to address the "barriers to equitable care for the most vulnerable persons in need of care for a serious illness" (CAPC, 2021).

In addition to, and regarding the SDOH, social workers apply their knowledge of the person-in-environment framework, which is a holistic framework dedicated to providing care to the patient at several levels (CAPC, 2021). First, the micro-level, or family system, followed by the mezzo-level, which includes the local environment and relationships, and finally the macro-level, defined as systemic factors, all of which factor in to SDOH (CAPC, 2021). This comprehensive understanding about these levels and the SDOH within their practice highlight even more that the practice of social work is very closely linked to health and vulnerable populations (CAPC, 2021). Hospice and palliative care providers, therefore, can work to help support greater health equity and access. The Center to Advance Palliative Care provides action items to support this effort. These include:

- "[Asking] the social worker on your team about the greatest burdens and unmet needs in the population you serve.
- [Leading] with purpose and [developing] a vision and mission encompassing reducing health inequity. This requires development of and adherence to an equity strategic plan.
- [Listening] to patients and families about what matters most to them, and about their greatest worries". (CAPC, 2021, p.1).

Length of stay

The median length of stay (LOS) for Medicare patients receiving hospice care was 18 days, and more than 25% of decedents enrolled in hospice during the last week of life (MedPAC, 2020; NHPCO, 2020). Despite having 6 months eligibility on the Medicare Hospice Benefit, most patients receive care for a few days to a few weeks. Research has shown that a longer LOS has an increased benefit on patient care, therefore these short LOS deprive patients and families support and education needed at the end of life (EOL; MedPAC, 2020). Research indicates there are multiple factors most likely contributing to these short stays; these factors include, but are not limited to:

- Physician/provider reluctancy or discomfort with EOL conversations until death is imminent.
- Patients' or families' lack of acceptance of a terminal prognosis.
- Continuation of aggressive clinical interventions because of financial incentives in the fee for service (FFS) plans (MedPAC, 2020).

Physician/ provider reluctancy

Barriers affecting timely referrals to hospice care by physicians or other providers include uncertainty of prognosis, education regarding the criteria for admission to hospice services, and discomfort in discussing the prognosis with the patient and family (Tran, 2020). More specifically, these practitioners have difficulty in decision making when the patient has met the terminal or 6 months or less measurement criteria (Tran, 2020). In addition, many healthcare providers have difficulty speaking about EOL. According to Cicolello & Anandarajah (2019), there is an aspect of avoidance and emotional stress among physicians. "One physician stated, 'Sometimes I can get very close to people, and I don't want to do it too, so sometimes it's my own personal barrier'" (Cicolello & Anandarajah, 2019, p.873). Because of this delay, oftentimes the patient is imminently or actively dying when the decision is made to approach the family.

Patients' or families' lack of acceptance

Many hospice clinical teams point out that families are misinformed about what hospice care is and that it makes them feel as if they are giving up on their loved one (Cicolello & Anandarajah, 2019). The most common misconception was that one can only go to hospice when they are imminently dying (Cicolello & Anandarajah, 2019). In one study that looked at barriers to hospice care, participants commented on both the beneficial and potentially detrimental beliefs, including how families can find comfort at EOL; however sometimes the hope of a miracle "could lead to prolonged suffering because of nonmedically indicated life-sustaining measures" (Cicolello & Anandarajah, 2019, p. 875).

Continuation of aggressive clinical interventions because of financial incentives

The FFS payment system has historically paid for and provided financial incentives towards specific tasks, procedures, or services which aim the focus more towards volume than the quality of care and has been more focused on the acute care and institutional care, rather than community-based care (C-TAC, 2019). Unfortunately, this type of payment structure and emphasis has caused practitioners to delay advanced care planning, palliative care, and hospice referrals by continuing unnecessary and arguably futile clinical interventions for financial gain (MedPAC, 2020). This practice has resulted in an underutilization of hospice services as indicated by the percentage of

palliative care deaths and discharges that were higher in larger hospitals (C-TAC, 2019).

All these barriers further emphasize the need for clinicians to educate themselves on the benefits of early palliative care and hospice referrals, as these services have been proven to improve quality of life, patient outcomes and goals, and reduce costs (C-TAC, 2019). As the population ages, life expectancy increases, and the prevalence of advanced illness rises, clinicians must be ready to introduce hospice and palliative care services early in a patient's serious illness trajectory and not in the last days of a patient's life.

Levels of hospice care and services

There are four levels of hospice care, defined by Medicare, which correspond to both acuity level and payment structure: routine home care, continuous (aka crisis) home care, respite care, and general inpatient care (Centers for Medicare and Medicaid Services [CMS], 2020).

1. Routine home care: the level of care that most patients receive at home. This consists of interdisciplinary care delivered on an intermittent basis at the patient's home. This includes skilled nursing facilities (SNFS), group homes, and assisted living facilities (ALF; CMS, 2021).
2. Continuous home care: used when patients have symptom management needs that require temporary 24-hour support (CMS, 2021). This level of care, also known as crisis care, assists patients who may require a higher level of nursing care but desire to stay at home (CMS, 2021).
3. Respite care: caregivers are allowed a period of rest while patients are cared for by an IDT in a facility. In respite care, patients are allowed 5 days of care while on hospice services. Respites are pre-planned stays in facilities (e.g., inpatient units or SNFS) which can occur under the following circumstances:
    - Caregivers who may be suffering from physical or emotional exhaustion from taking care of a patient around the clock.
    - Caregivers who would like to attend a family event such as a graduation, wedding, funeral, etc.
    - Caregivers who become ill and cannot take care of the patient (NHPCO, 2019b).
4. General inpatient care: When the patient develops uncontrolled acute symptoms or a medical issue which cannot be resolved in the home or with continuous care, general inpatient care must be provided by the hospice. This includes issues such as:
    - Uncontrolled pain and/or agitation.
    - Uncontrolled seizures.
    - Uncontrolled nausea and vomiting.
    - Unmanageable dyspnea.
    - Complex wound care.
    - Minor comfort care procedures (e.g., paracentesis; NHPCO, 2019a).

Volunteer services

Hospice volunteers are used in day-to-day administrative and/or direct patient care roles. More specifically, volunteers must provide this type of support "in an amount that, at a minimum, equals 5% of the total patient care hours of all paid hospice employees and contract staff" (CMS, 2020, p. 102). Volunteers are an essential part of the IDT and endure rigorous training to participate in hospice programs. Their role in the IDT is to assist in various tasks including caregiver support, patient companionship, legacy writing, and administrative duties.

Bereavement services

As indicated previously, both hospice and palliative care programs offer support to bereaved family members as they anticipate the patient's death. However, hospice programs that are Medicare certified are required to also offer bereavement care to the family for 13 months after the death. These bereavement services may include monthly phone calls to the family members, acknowledgements of anniversaries, receptions honoring those on hospice services, and resources for support groups (CMS, 2021).

Hospice Medicare benefit

Sources of payment for hospice care include private health insurance, veteran's benefits, the patient's own income or family support, charitable donations, Medicaid, or Medicare (American Hospice Foundation, n.d. -b). Medicare patients have a specific Hospice Medicare Benefit (HMB) that reimburses the hospice on a per diem basis. The hospice provides clinical support from the IDT, as well as durable medical equipment and coverage of medications associated with the terminal illness. Approximately 85 percent of hospice reimbursement/payment comes from the HMB (CMS, 2021a).

The HMB does not cover curative treatments or medications, care from specialists not approved by the hospice provider, room and board for hospice care provided in a patient's home or another facility, such as a nursing home (CMS, 2021a). In addition, hospice items and services under the HMB require that items and services be provided by Medicare-approved hospice programs that include physician and nursing services, physical and occupational therapy, speech-language pathology, medical social services, home health aides, counseling (including dietary counseling), medical supplies and medical appliances, and short-term inpatient care (including both respite care and procedures necessary for symptom management; CMS, 2021a).

The HMB consists of two 90-day benefit periods and unlimited 60-day benefit periods (American Academy of Professional Coders [AAPC], 2018). At the end of each benefit period, the provider must document changes in the patient's status and eligibility to stay on hospice care. According to CMS (2021), hospice care is continuous from one benefit period (90-90-60) to another unless the patient revokes the hospice benefit or the physician discharges or does not re-certify the patient. If this occurs, the remaining days in the benefit period cannot be used (CMS, 2021a). The patient can be readmitted to hospice if they elect coverage again and if they meet the hospice coverage requirements (AAPC, 2018). The HMB also stipulates that the IDT includes members of specific disciplines. These disciplines are (CMS, 2021a):

- The medical director, who oversees all patients' medical care and assists the team in creating patients' plan of care. The medical directors can but are not required to be the attending physicians for hospice patients. They work with the IDT to provide suggestions and collaborate with the patient, family, attending physician, and hospice team.
- Nurses coordinate patients' care and assess and manage symptoms. They provide patient and family education, collaborate with the physician and other team members, initiate, and administer treatments, provide physical care, and offer emotional support.
- Home health aides are certified Nurses Assistants who provide personal care, support, and light housekeeping for the patient and family.
- Social workers evaluate and support caregiving resources, seek out community resources, assist patients and families with any legal or insurance concerns, and offer supportive counseling.
- Chaplains or pastoral counselors offer spiritual support to patients and family members directed by the patient and family members' needs, values, and beliefs.
- Bereavement counselors facilitate support groups, train bereavement volunteers, and design and distribute bereavement material to families. Following the patient's death, bereavement support is made available to caregivers, families, and friends for 13 months.
- Volunteer coordinators administer and develop the volunteer programs for each hospice. The coordinators recruit, train, and assign volunteers to hospice patients.
- Other members of the hospice team can include counselors, physical and occupational therapists, speech-language pathologists, homemakers, and volunteers.

Initiation of hospice care

Anyone can inquire about hospice services for a patient; however, initiation of hospice care requires a physician's referral and certification (NHPCO, 2021). Once this occurs, a nurse will conduct an initial assessment within 24 hours, beginning with the presenting problem and moving through the individual's history to ensure the patient meets hospice requirements. The comprehensive assessment, different than the initial assessment, must be completed within 5 days of the election of hospice care. This assessment is required to be submitted to CMS as part of an assessment of quality measures. If hospices do not provide this information in a timely manner, CMS penalizes hospices by withholding reimbursement payment. The nurse then provides information about hospice philosophy, along with identifying specific patient needs. The most prevalent issues facing the patient and family members are identified, which directs the development of an initial individualized written plan of care (POC; NHPCO, 2021). Oftentimes, other members of the IDT, such as a social worker or chaplain, will be involved with the initial assessment and add to the POC. If the patient is alert and oriented, they make the decision to receive hospice care and determine the family members' level of involvement. If the patient does not have decision-making capacity, the designated, documented Power of Attorney (POA) makes the decision for the patient. A comprehensive assessment needs to be completed within 5 calendar days after the election of hospice (NHPCO, 2021).

After the comprehensive assessment is completed, the hospice team creates an interdisciplinary plan of care. The plan of care identifies the patient- and family- specific needs and related goals. This initial plan of care is developed to guide the care provided during the first days of hospice care. This plan can be updated as frequently as required by patient needs but regulations require that the plan be updated every 15 days based on the ongoing assessments of the full IDT (CMS, 2021a).

Hospice performance measures

Under the Tax Equity and Fiscal Responsibility Act of 1982, CMS established the Conditions of Participation (CoPs), requiring hospices to comply with specific components of patient care and processes (MedPAC, 2020). Hospices must undergo an initial certification and subsequent audits to ensure regulatory requirements are met. In 2010, as part of the Patient Protection and Affordable Care Act (ACA), CMS established a quality reporting program for hospices, requiring all Medicare-certified hospices to report quality measures (CMS, 2021b). The performance of these seven measures, called the Hospice Item Set (HIS), is then evaluated and benchmarked against other hospice programs and determines financial impact (payment) to the hospice (CMS, 2021b). Finally, in 2015, CMS implemented the Consumer Assessment of Healthcare Providers and Systems (CAHPS®), developed by the Agency for Healthcare Research and Quality (Agency for Healthcare Research and Quality [A], 2019). This survey, similar to the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) for hospitals, "assesses the experiences of patients who died while receiving hospice care and their primary informal caregivers (CMS, 2021b). The survey treats the patient and caregiver as a single unit of care. Its purpose is to :

- Provide a source of information on patient/caregiver experiences that can be publicly reported to beneficiaries and their family members to help them select a hospice program.
- Support hospices with their internal quality improvement efforts and external benchmarking with other facilities.
- Provide the Centers for Medicare & Medicaid Services (CMS) with information for monitoring the care provided by hospices"(ARHQ, 2019, p.1).

Because grief can be felt intensely immediately after the death, the survey is sent out 3 months after the patient's death to the primary caregiver of the decedent. The CAHPS® survey can be administered via telephone, mail, or mixed mode, and includes the following measures of patient experience:

- Hospice team communication.
- Getting timely care.
- Treating family member with respect.
- Providing emotional support.
- Providing support for religious and spiritual beliefs.
- Getting help for symptoms.
- Information continuity.
- Understanding the side effects of pain medication.
- Getting hospice care training.
- Overall rating of hospice care.
- Willingness to recommend the hospice (CMS, 2021b).

Self-Assessment Quiz Question #1

You are talking to your clinical colleagues about end-of-life care for a patient. Someone states that hospice is the same as palliative care and that only private insurance pays for hospice care. You know this isn't accurate and clarify to your colleagues that:

a. Hospice is a subset of palliative care.
b. Hospice is a subset of palliative care and can be paid for by private health insurance, veteran's benefits, the patient's own income or family support, charitable donations, Medicaid, or from the Medicare hospice benefit.
c. Hospice can only be paid for by private health insurance.
d. Palliative care is the same hospice care but for those in a hospital setting.

Self-Assessment Quiz Question #2

The four levels of hospice care are:

a. Routine, continuous, general inpatient, and respite.
b. Routine, conventional, acute, and respite.
c. Home care, palliative, general inpatient, and routine.
d. Crisis care, routine, and respite.

Self-Assessment Quiz Question #3

Any patient can qualify for hospice care as long as they have all of the following EXCEPT:

a. An advanced illness.
b. Certification of terminal illness by a physician.
c. A family to care for them.
d. 6 months or less to live.

PALLIATIVE CARE

What is palliative care?

Palliative care is the treatment of the discomfort, symptoms, and stress associated with advanced or life-limiting illness (National Institutes of Health, National Institute of Nursing Research, 2021). The emphasis of palliative care, which occurs across the patient's illness trajectory, is on (1) encouraging conversations about goals of care at time of patient diagnosis of a serious illness; (2) considering the benefits versus burdens of treatment options; and (3) attending to the physical, psychological, social, spiritual, and existential needs of the patient/family unit across the lifespan (American Association of Colleges of Nursing, 2016). Patients receiving palliative care often suffer from the symptoms and stress of serious illnesses, including but not limited to cancer, dementia, heart failure, Parkinson's disease, and chronic obstructive pulmonary disease (COPD; National Institutes of Health, National Institute on Aging, 2017). Palliative care teams offer this care

to support curative or other treatment plans of care and help patients and families understand their choices for medical treatment (Mayo Clinic, 2021). Palliative care is not dependent on prognosis and patients do not need to be in hospice or at EOL; patients can receive palliative care at any age and at any time during their illness (National Institutes of Health, National Institute of Nursing Research, 2021).

There are eight domains of palliative care to meet the needs of the whole person and include psychological, physical, spiritual, religious, existential, cultural, structure and processes of care, financial, social, and ethical and legal services (National Quality Forum ([NQF], 2017). When providing palliative care, healthcare professionals should consider the patient population of the person for whom they are caring to provide the best and most appropriate care. Different populations may include adult, pediatric, neonatal, perinatal, and geriatric patients.

Besides physical needs, other issues faced by seriously ill patients may include the following (NQF, 2017):

- Losing independence.
- Maintaining self-determination and a sense of control.
- Decision making about how and where to die.
- Declining functions and related concerns about being a burden.
- Fear of pain and other distressing symptoms.

Population specific palliative care

Pediatric palliative care

Pediatric palliative care is specialized medical care for children of any age that can be provided at any stage of a serious illness, along with treatment meant to cure (Center to Advance Palliative Care [CAPC], 2021). Pediatric palliative care provides relief from distressing symptoms, manages medication and treatment side effects, assists parents with methods to talk with siblings, provides respite care, and finds community resources (CAPC, 2021). Pediatric palliative care, similar to that for the adult population, also aims to meet the emotional, developmental, and spiritual needs of patients and their family members (CAPC, 2021). For example, psychosocial interventions can be offered to adolescents and young adults that range from weekend retreats to transition services when they go back to school, social workers who provide counseling, and expressive arts therapists who help them normalize their situation (Sison, et al., 2017).

A pediatric intensive care unit nurse writes of supporting a mother after the death of her baby and how it can affect a clinician on a personal level. "When it came time to withdraw the life support, it was too much for her to watch. She pleaded with us through tears to please be gentle with him, and then left the room, broken. When it was all done, she returned to hold her baby in her arms one final time. It was the strangest act for me, putting her deceased child in her arms, as if I were all at once giving to her a beautiful but most terrible gift, and then leaving her alone to figure out what to do with it. All I could do was whisper, "'Take as much time as you need'" (Sato, 2017, p. 72).

Perinatal and neonatal palliative care

Despite the medical advances and treatments in neonatology that have improved survival rates, when a neonate is diagnosed with a serious illness, mainly congenital in nature, both perinatal and neonatal palliative care is called upon to prevent and relieve pain and suffering as well as support the needs and choices of the parents (Kilcullen & Ireland, 2017). Perinatal deaths are defined in various ways. Perinatal deaths can include fetal deaths as well as live births with only a brief survival of days or weeks. The definition of perinatal death is "…the death of a baby between 22 weeks of gestation (or weighing 500 g) and 7 days after birth" (Camacho-Ávila & Fernández-Sola, 2019, p.1). The March of Dimes (2021) defines a neonatal death as a live birth that results in death within the first 28 days of life.

Although preterm births, those less than 37 weeks gestation, diminished between 2007 and 2014 (10.41% to 9.54%), new data from the Centers for Disease Control and Prevention (2021) show they have risen for the fifth straight year to 10.23% in 2019. This highlights the need for clinicians who can provide support and comfort to parents when their baby has a life limiting illness or is born premature or stillborn. This specialized type of palliative care helps to guide the decision-making process to anticipate, prevent, and relieve suffering; choices along the spectrum of this care include pregnancy termination (abortion) to full neonatal resuscitation and treatment (American College of Obstetricians and Gynecologists, 2019).

An example of perinatal palliative care delivered is with a mother who shared the experience of her pregnancy scan that led to a diagnosis of a chromosomal abnormality called trisomy 18 and of her child being stillborn at 36 weeks' gestation (Children's Project on Hospice and Palliative Care [ChiPPS], 2017). Although the chance of a live birth was very slim, nearing the induction date, clinicians discussed with both parents which interventions they wanted if the baby was born alive and was able to come home, arranged for the parents to talk with a child life specialist to understand how to explain the situation to their 2-year-old son, assisted in choosing a funeral home, and discussed memory making. After the birth of their dead infant daughter, the parents held their baby the entire day in the hospital, introduced her to extended family, baptized her, gave her a bath, made handprint and footprint molds, and took photos. This advance care planning before birth allowed the parents to spend their time making memories when she was born instead of making difficult decisions (ChiPPS, 2017).

Yildiz and Cimete (2017) studied the effects of a grief support program in a hospital neonatal intensive care unit (NICU) in Turkey. Participants in the study were those whose babies in the NICU had a higher risk of dying within 1 year. In the period before the baby's death, as part of a neonatal palliative care plan, parents were encouraged to touch their babies and call them by name during every visit. The parents were also given a picture of their baby if desired. After the baby's death, parents were given a chance to see and embrace the swathed baby in a private room. Follow-up interventions included two phone calls and two home visits to assess the bereavement status of the parents. They were given a brochure that explained ways to cope with stress and a guide that listed common grief reactions and ways to explain loss to children. The interventions from this study can provide guidance for clinicians who work in NICUs to consider in caring for those parents whose babies are at high risk of dying (Yildiz & Cimete, 2017). Interventions such as allowing parents to hold the infant, keep the umbilical cord clamp, take photos, keep clothes or foot/handprints, or have the baby baptized can be helpful in allowing parents to grieve (Camacho-Ávila, M. & Fernández-Sola, C., 2019).

Geriatric palliative care

Many terminal illnesses produce shock and grief in their diagnosis, require that someone receive care, and deny a person the prospect of living "to a ripe old age" (Macdonald, 2017). While the delivery of palliative care to the older population is not new, geriatric palliative care is an inter-specialty collaborative approach that "aims to improve the quality of life of elderly persons facing severe and life-threatening illness near the end of their lives" (Voumard, et al., 2019. p.3).

Patients with a primary diagnosis of cancer (32%) had the greatest number of days on palliative care, followed by primary diagnoses of circulatory/heart disease (13.2%) and pulmonary disease (11.3%; Schoenherr, et al., 2019). In addition to these diagnoses, dementia, including Alzheimer's disease, vascular dementia, and dementia with Lewy Bodies, has been steadily increasing (Endsley, & Main, 2019). According to Endsley and Main (2019), by 2025, the number [of patients with dementia] is expected to grow by almost 35% to 7.1 million, with some projections of 16 million by 2050" (p.456). Regardless of etiology, pain is the most common complaint (50%) of palliative care patients (Endsley & Main, 2019, p.457). This is an important consideration for clinicians who work with geriatric patients and their families to provide quality palliative care.

Healthcare Professional Consideration: More specifically, the geriatric palliative care team can help the patient and family understand each stage of the illness; assess and treat symptoms; make choices that will protect the patient's quality of life; help caregivers establish a daily routine for care; recognize what contributes to troubling behavior; ensure patients have 24-hour support; and help families understand the financial costs of care, including Medicare (CAPC, 2021).

Nearly 20 years ago, Beatitudes Campus, an older adult community in Arizona, created a palliative care program for individuals with dementia that focused on overall comfort and well-being. Namely, Beatitudes Campus maintains that those with dementia should (Comfort Matters, 2021):

- Have access to comfort every day.
- Be offered palliative care well in advance of the end of life.
- Sleep when tired.
- Eat what is appetizing, whenever hungry, by having foods that appeal to them available.
- Receive individualized assistance with personal care.
- Be engaged in meaningful ways, considering unique interests and lifelong pursuits.
- Live in an environment that seeks to promote personal autonomy through balancing sensory, stimulating, and calming events

Just as important as addressing individualized comfort and well-being for patients with dementia is addressing the needs of family members while caregiving. According to MacCourt and colleagues (2017), while giving care, family members feel the loss of the person they knew and may begin their bereavement long before the person they are caring for dies. Although the complexities of family members' offering practical and emotional support to a patient with dementia have been well documented, there continues to be little information about intervention effectiveness, especially in diverse populations (MacCourt et al., 2017). Kathleen Venema (2018) wrote about her mother, who was challenged by the myriad and unpredictable effects of Alzheimer's disease:

> "Mom is confined to a wheelchair, often sounds like an animal in pain, must be fed her meals of puréed food, registers only the barest awareness of others around her. Every Friday I find her bent double over the tray attached to her wheelchair. I hold her hands, stroke her face, tell her I love her, and marvel at the relative ease with which I might breach the infinitesimally thin line – incredibly, the still-thinning line – between living and dying". (Venema, K., 2018, p. 304).

Settings for hospice and palliative care

Palliative and hospice services are provided in settings with various types and domains of care. The most common settings include the following (National Coalition for Hospice and Palliative Care (NCHPC), 2017):

- Hospitals.
- Long-term or chronic care facilities.
- Inpatient hospice facilities.
- The patient's home.

However, as palliative care is supportive care within a medical plan of care, it is also offered across settings such as office practices, cancer centers, dialysis units, assisted-living facilities, home health and hospice agencies, social service agencies, prisons, and homeless shelters (NCHPC, 2017). Regardless of the setting, it is paramount that communication flows among the various settings for optimal health care. This flow of communication among clinicians is important for efficient and successful coordination of care. There are significant incentives for improved integration and collaboration among hospice, hospitals, and community-based programs (Center to Advance Palliative Care [CAPC], n.d.). Hospitals receive penalties for rehospitalizations, unnecessary hospitalizations, and emergency department utilization. Therefore, they are incentivized to find methods to improve community-based palliative care providers (CAPC, n.d.).

Healthcare Professional Consideration: Inpatient palliative care teams assist throughout a health system but play a significant role in intensive care units (ICU). Because 60% of deaths in critical care occur following withdrawal of treatment, hospital-based palliative care teams are essential in providing expertise and support for patients and staff in ICUs (Braganza, Glossop, & Vora, 2017). Life-sustaining procedures that can potentially postpone death include but are not limited to intravenous (IV) fluids for the purpose of hydration, enteral tube feedings, mechanical ventilation, chemotherapy, dialysis, and cardiopulmonary resuscitation (CPR; Coté, et al., 2018). Compassionate care in an ICU that is directed to the patient's family during treatment withdrawal is established through delivery of care and emotional support while maintaining the patient's dignity by controlling symptoms, ensuring patient cleanliness, and removing technical apparatus (Efstathiou & Ives, 2017).

Benefits of Effective Palliative Care-Hospital Partnerships

- Expedites and expands access to a continuum of high-quality palliative care services.
- Extends and strengthens the hospice-hospital partnership through an improved understanding about the resources and constraints of each partner.
- Identifies strategies for improving patient and family satisfaction ratings.
- Provides greater access to professional, community-based bereavement services for families of deceased patients.
- Enhances access to appropriate reimbursement structures for palliative care and hospice services (CAPC, n.d.).

DELIVERY OF HOSPICE AND PALLIATIVE CARE

> *Nurses within the palliative care specialty may practice in designated palliative and hospice teams – our call is for all nurses to take action to transform palliative care across all specialties and care settings.*
> *– American Nurses Association President Pamela F. Cipriano, PhD, RN, NEA-BC, FAAN (ANA, 2019).*

Hospice and palliative care include the family, which is defined by the patient (NHPCO, 2020). Spatuzzi and colleagues (2017) studied quality of life in family caregivers of patients with advanced cancer in active treatment centers and hospice care. Caregivers reported that they need more support and information from clinicians when their loved ones are moving from curative oncology treatment settings to other levels of care (Spatuzzi et al., 2017). Therefore, the availability of family/ caregiver support must be in place from the moment of the diagnosis (Spatuzzi et al., 2017). To gain trust of their patients and caregivers, clinicians need to coordinate palliative care to improve a patient's quality of life, understand the significance of providing palliative care across the lifespan, and understand hospice philosophy and central principles (Spatuzzi et al., 2017).

The patient and their caregivers and/or family are involved in the plan of care as appropriate. Usually, the patient is central to decision making, but in some cultures, other members of the family may be designated to make decisions about the patient's care (NHPCO, 2020). Family members are taught how to provide care to the patient, educated about the disease process and how it progresses, and signs and symptoms of the dying process (Capital Caring Health [CCH], 2021).

Interdisciplinary care services

As previously mentioned, hospice and palliative care are both provided by IDT working in coordination to provide patient- and family-centered care (NHPCO, 2020). Patient- and family-centered care take place when the health system's mission and quality-improvement drivers are aligned with a patient's goals, preferences, and cultural traditions, and when the patient, while receiving the right care at the right time, shares information as part of the care team to make informed decisions that result in improved individual health outcomes (Picker Institute, 2021). The core concepts of patient- and family-centered care are dignity and respect for the patient and family; sharing of information and taking part in care and decision making; involvement in care at a level they choose; and collaboration among the patient, family members, and clinicians in developing and evaluating policies and programs (St. Jude Children's Research Hospital, 2021.).

Symptom management

Alleviation of physical and psychosocial symptoms to achieve the best quality of life is the major emphasis of both palliative and hospice care (CCH, 2021). Physical symptoms that may evolve as the disease takes its natural course are pain, constipation, ascites, anorexia, alterations in bowel and bladder functioning, itching, dry mouth, nausea and vomiting, skin breakdown, fever, cough, and altered breathing patterns such as dyspnea (CCH, 2021). As death approaches it is important for both clinicians and family/caregivers to understand symptom progression at the EOL to provide better symptom management for the patient (NHPCO, 2021). Patients and family members are given information by clinicians about what to expect as the disease takes its natural course (CCH, 2021).

During the last 3 months of life, patients may get their affairs in order, sometimes consciously or subconsciously (CCH, 2021). During this time, patients may acknowledge their dying and begin to withdraw and communicate less with those around them, may lose interest in watching television or reading the paper, sleep more than usual, and take naps throughout the day (CCH, 2021). Patients may create a list of items that they want to bequeath to family and friends after they die (Caring Info, 2021). They may begin to or seek advice on how to list financial assets and insurance policies. At this time patients are encouraged to complete a living will, advanced directive, healthcare proxy or power of attorney for medical decisions if it has not been completed.

Despite 90% of American adults agreeing on the importance of outlining and notifying family or friends about end-of-life decisions, only 30% of the same people have documented their preferences (CCH, 2021). An advanced directive is oral or written instruction on how to care for an individual if they are unable to make decisions for themselves. Types of advanced directives are the power of attorney, and a living will. Most advance directives are written by older or seriously ill people (American Family Physician (AAFP), 2021). However, experts agree people should document their wishes at a younger age before a serious accident or illness occurs, when they are in good health (The Conversation Project, 2021). Research shows that, if a person has this documentation, their wishes are more likely to be followed (AAFP, 2021). Many people have difficulty understanding the differences in these documents and how to complete them.

- A power of attorney, or healthcare proxy, is a type of advance directive in which you name a person (family member, friend, guardian) to make medical decisions for you when you are unable to do so (The Conversation Project, 2021).
- A living will is a written, legal document that indicates medical treatments a person would and would not want to be used to sustain life, as well as other medical decisions, such as pain management or organ donation (AAFP, 2021).

In addition to these documents, a do-not-resuscitate (DNR) or allow natural death (AND)) order can be placed in an advanced directive document (CCH, 2021). This legal document can be placed in the medical record and is a request that medical personnel do not perform cardiopulmonary resuscitation (CPR) on a patient if they are pulseless and/or have no respiratory rate/effort (CCH, 2021).

Weeks before death, patients often sleep for most of the day and night. Marked weight loss is common because of poor appetite secondary to lack of hunger, gastritis, nausea, or oral lesions (CCH, 2021). However, as the body shuts down, those who are dying need and want less food; therefore, anorexia is often an unavoidable consequence of an end-stage disease process (NHPCO, 2020). It is also common for patients during these last weeks of life to have a short-lived "rally" and spontaneously ask for a meal or be alert, oriented, and ready for a conversation when previously they were withdrawn or lethargic (NHPCO, 2020).

Towards the last few weeks or days of life, patients may come to terms with dying. Clinicians can explore patients' values, beliefs and meaning in life. McClement and Thompson (2018) found that clinicians who worked in palliative and hospice care were competent in their knowledge about what dying meant to the patient. They also learn what living means– to have relationships and friendships, a belief system, a culture, and a history that meld to form significance throughout one's life (McClement & Thompson, 2018). Clinicians who support patients at the end of life often do not know each patient's detailed personal history, but should be aware of individual characteristics (i.e., relationships and friendships, belief system, culture, etc.) of their lives (McClement & Thompson, 2018). The best method to obtain this information is by asking questions that reflect the patient's roles and accomplishments throughout their lifetime (McClement & Thompson, 2018).

The last days of life, the patient may reduce their physical activity and experience symptoms/ behaviors as described in Table 1 (CCH, 2021). Shortness of breath, which can include labored and noisy breathing, is common in the days before death as respiratory dysfunction and the loss of the ability to swallow occur (CCH, 2021) Cheyne-Stokes respirations (several rapid breaths followed by periods of apnea for up to 30 seconds) can occur along with coughing as the body's fluids begin to build up in the lungs (Hospice Foundation of America ([HFA], 2018). These symptoms can be alleviated with opioids, benzodiazepines, atropine, or scopolamine, along with positioning the patient on their side (HFA, 2018). Pain should be aggressively treated throughout the dying process and especially during the final days and hours before death (American Nurses Association [ANA] & Hospice and Palliative Care Nurses Association [HPNA], 2021). Clinicians should speak with patients and their families about their beliefs and misconceptions about pain management and help patients and family members overcome fears about using narcotics (ANA & HPNA, 2021).

Table 1: End of Life Timeline: Signs, Symptoms, & Interventions as Death Approaches		
	Signs & Symptoms	Interventions
Last three (3) months of life	• Getting their affairs in order. • Less interested in activities or acquaintances outside of family or close friends. • Eating decreases to smaller meals and preferred foods. • Much less active: if active one day, may sleep the entire next day.	• Support the patient and family in decision making. • Provide resources and information. • Encourage patient to talk about needs and end of life goals. • Provide consults as needed (social work, nutrition).
Last week or days of life	• Restlessness/agitation. • May talk about travel or getting ready to "go on a trip". • Sleeping 20-23 hours a day; Awake only brief periods at a time. • Talking to people who have already died; May speak of angels in the room. • Eating little to no food/Taking only sips of liquid. • May have brief periods of alertness and hunger. • Loss of ability to control urine and bowel movements.	• Talk to the patient calmly, light room dimly and use distraction techniques to help reduce restlessness. ○ Consider the use of medications (Haldol, Ativan) if patient agitation causes discomfort (requires order). • Continue to encourage the patient to verbalize thoughts and feelings. • Educate family about the process of dying, including sleeping more, the decrease in eating or drinking, and verbalizing needs and dreams. • Pressure care prevention and positioning is important as the patient becomes more immobile and less able to eat or drink. ○ Elevate head slightly. ○ Turn and reposition patient every 2 hours or as policy requires. ○ Use slide boards/draw sheet when turning to prevent tearing injuries. ○ If wound develops, ensure to document, and treat according to wound type/size and provider order. Consider wound consult if extensive. • Skin care: Keep patient clean via bed bath once a day and provide gentle massage of extremities and back. ○ Can use lotion with massage to help moisturize skin • Use adult briefs for incontinence of urine and feces and change immediately to prevent skin breakdown. ○ Consider foley catheter or rectal tube placement (physician order required) if excessive or required to prevent skin breakdown
Last hours of life	• Body temperature changes. ○ Patient may become febrile. • Irregular breathing patterns can occur. ○ Tachypnea, apnea, Cheyne-stokes (period of deep, rapid breathing followed by slowing or apnea). • Noisy breathing can occur and is typically caused by inability to clear secretions. • Changes in swallowing; Secretions in their mouth. • Slowing pulse and or changes in circulation (cyanosis/mottling). • Confusion, restlessness, or unconsciousness. • Vision changes.	• Counsel family about the signs of impending death so not to be alarmed; let them know their presence helps. ○ Remind the family of the belief that hearing may still be intact until death and encourage them to talk to their loved one. • Monitor body temperature, cover patient with light sheet/blankets depending on value. ○ Consider the use of antipyretics (physician order required) to prevent or treat fever, especially if causing patient discomfort. • Provide oxygen as required for comfort. • If patient becomes anxious or uncomfortable with breathing, consider the use of pain medication (morphine) or anti-anxiety mediation (Ativan; order required). • As mouth breathing becomes more noticeable, provide frequent oral care. ○ Clean and moisten (or remove) dentures as necessary. ○ Provide ice chips or small sips of water. Use moist oral sponges if patient cannot swallow. • Remove any accumulating oral secretions by positioning patient on their side and gentle suction. ○ Consider the use of medication (order required) such as Glycopyrrolate or Scopolamine to dry secretions.

Table 1: End of Life Timeline: Signs, Symptoms, & Interventions as Death Approaches *continued*		
	Signs & Symptoms	Interventions
When death occurs	• The patient cannot be awakened, is unresponsive to stimuli. • The patient stops breathing and their heartbeat stops • Their eyelids may be partially open with the eyes in a fixed stare. • Their mouth may fall open slightly as the jaw relaxes. • Body fluids (urine or stool) may be released as muscles relax.	• Perform assessment of body and pronouncement of death per policy. • Provide comfort and support to family. Encourage family to be with the deceased as appropriate. • Perform postmortem care. • Discuss and inform the family about next steps: (calling funeral home, death certificate, belongings). • Allow for members of the interdisciplinary team to say goodbye to the deceased as appropriate. • Complete all required documentation per policy.
(CCH, 2021; De Swardt & Fouché, 2017)		

As quality of life is the most important goal of hospice and palliative care, having knowledge regarding pain as well as the skill to conduct a comprehensive pain assessment is imperative to the delivery of care. In 2020, the International Association for the Study of Pain revised the definition of pain as "An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage" (Raja, et al., 2020, p.1). In addition, the new definition includes 6 points that provide context to the experience of pain. These are:

1. "Pain is always a personal experience that is influenced to varying degrees by biological, psychological, and social factors.
2. Pain and nociception are different phenomena. Pain cannot be inferred solely from activity in sensory neurons.
3. Through their life experiences, individuals learn the concept of pain.
4. A person's report of an experience as pain should be respected.
5. Although pain usually serves an adaptive role, it may have adverse effects on function and social and psychological well-being.
6. Verbal description is only one of several behaviors to express pain; inability to communicate does not negate the possibility that a human or a nonhuman animal experiences pain." (Raja, et al., 2020, p.1)

In hospice and palliative care, the comprehensive pain assessment is performed and documented by a registered nurse (RN) on admission and then with each visit or patient contact (ANA & HPNA, 2021). In addition to the nurse, all IDT members are trained to assess for pain upon each visit with the patient. For patients who can self-report or who have family present, this includes rating pain on a linear scale (numeric or FACES) and following the PQRST assessment (Table 2).

Table 2: The PQRST Pain Assessment	
Letter	Question(s) to ask patient and/or family member
P= Palliative / Provoking Factors	What causes the pain? What makes it better? Worse?
Q= Quality of Pain	What does the pain feel like? (e.g., sharp, burning, stabbing, dull).
R= Radiation of Pain	Does the pain radiate to other areas? If so, where?
S= Severity of Pain	How severe is the pain on a scale of 0-10? (Other intensity scales can be used).
T= Temporal Factors / Timing	When did the pain start? How long does it last?
(Aus Med, 2021)	

For patients who are non-verbal or cannot answer questions because of cognition or mentation status, clinicians must still assess for pain (ANA & HPNA, 2021). Using tools such as FLACC or PAIN-AD scales can be helpful in addition to clinical observation. The FLACC (Face, Legs, Activity, Cry, Consolability) tool is used to assess pain for children between the ages of 2 months and 7 years or individuals that are unable to communicate their pain (Merkel, et al., 1997). The PAIN-AD (Pain Assessment in Advanced Dementia) tool is used to assess pain in older adults who have either suspected or diagnosed dementia or other cognitive impairment and are unable to reliably communicate their pain (Warden, et al., 2003). Once the assessment of pain is completed, clinicians must include the patient, family, and caregivers in choosing the pain management plan that is most acceptable and inform them that it is possible to control their pain. Interventions should then be implemented as soon as possible to decrease or avoid increasing time patient must tolerate the pain (ANA & HPNA, 2021).

Frequently, pain management includes a combination of treatments. Most frequently, opioid analgesics are used in treating pain associated with advanced illness. Opioid analgesics such as fentanyl, hydrocodone, morphine, and oxycodone are the most commonly used pain-relief medications in hospice and palliative care (American Society of Clinical Oncology, 2017). In combination with pain medication, patients may also benefit from complementary and alternative medicine, incorporating massage, animal-assisted therapy, or mind and body interventions in their symptom management plan (Urden, Stacy, & Lough, 2018). Physical, psychological, spiritual, and existential pain can be treated with biofeedback, relaxation techniques, transcutaneous electrical nerve stimulation, supportive counseling, and spiritual care (ANA & HPNA, 2021). Treatments for pain may also include radiation therapy, nerve blocks, and surgery. Notably, changes in breathing such as dyspnea, coughing, and congestion caused by the patient's inability to clear secretions can be managed by frequent mouth care, positioning the patient on their side, elevating the head of bed, or providing medications such as a opioids and anticholinergics (CCH, 2021).

Self-Assessment Quiz Question #4

What is the most important aspect of delivering hospice and palliative care?

a. Alleviation of pain, providing comfort care.
b. Ensuring the family can make decisions for the patient.
c. Alleviation of both physical and psychosocial symptoms to ensure the best quality of life.
d. Allowing the patient to die at home.

As mentioned in Table 1, the prevention and management of skin tears and pressure wounds are very important to the care of the immobile patient and pain management. Pressure wounds are defined as localized injury "to skin and underlying tissue resulting from prolonged pressure on the skin" (Mayo Clinic, 2021, p.1). These types of wounds most often occur on the bony prominences of the body including heels, ankles, hips, and sacrum/coccyx (Mayo Clinic, 2021). According to the National Pressure Injury Advisory Panel (NPIAP; 2017), there are 4 stages of pressure wounds as described below:

- Stage 1 includes non-blanchable erythema of intact skin "which may appear differently in darkly pigmented skin. Color changes do not include purple or maroon discoloration; these may indicate deep tissue pressure injury" (NPIAP, 2017, p.1).
- Stage 2 includes "partial-thickness skin loss with exposed dermis" (NPIAP, 2017, p.1). The clinician can visualize a moist, pink, or red wound bed that may look like an intact or ruptured blister (NPIAP, 2017).
- Stage 3 includes full-thickness skin loss, in which the clinician can visualize ulcer and granulation tissue (NPIAP, 2017). In addition,

slough and/or eschar may be visible as well (NPIAP, 2017). The depth of the wound "varies by anatomical location…Undermining and tunneling may occur" (NPIAP, 2017, p 2).
- Stage 4 also includes full-thickness skin loss; however, it has visible or directly palpable "fascia, muscle, tendon, ligament, cartilage or bone in the ulcer, and undermining and/or tunneling often occur" (NPIAP, 2017, p.2).

Clinicians should also be aware of other types of pressure wounds that can occur in the hospice and palliative care patient population. These include wounds which are considered unstageable or a deep tissue pressure injury (DTI). Unstageable pressure injuries, like stages 3 and 4, also have full-thickness loss; however, slough and/or eschar prevent visualization of the wound bed (NPIAP, 2017). According to NPIAP (2017), if the slough or eschar is removed, "a Stage 3 or Stage 4 pressure injury will be revealed. Stable eschar (i.e., dry, adherent, intact without erythema or fluctuance) on the heel or ischemic limb should not be softened or removed" (p2). A deep tissue pressure injury (or DTI) is considered a wound that is either intact or non-intact and has "persistent non-blanchable deep red, maroon or purple discoloration (NPIAP, 2017, p2.).

In hospice and palliative care, patients sometimes present and are suffering from malignant fungating wounds (MFW). The overall incidence of MFWs is not well documented because of underreporting by patients because of embarrassment and fear (Tilley, et al., 2016). However, among patients with advanced cancers, MFWs "afflict 5% of patients with advanced cancers and 10% of patients with metastasis with life expectancy averaging 6 to 12 months" (Tilley, et al., 2016 p. 514). It is worth noting that these wounds can cause a large symptom burden such as disfigurement, pain, pruritus, malodor, exudates, and bleeding (Tilley, et al., 2016). Caring for hospice patients with MFWs is complex and require a well-planned and interdisciplinary approach as the symptoms patients experience oftentimes lead to a diminished quality of life caused by pain, psychosocial and/or spiritual distress, and isolation (Tilley, et al., 2016).

Management of wounds can vary; however, regardless of treatment choice, the goal of palliative care is comfort. Pain is often the most frequent complaint for patients with wounds and, therefore, selection of the type of dressing and analgesic (systemic or topical) is essential in pain control. Secondly, managing the wound exudate is also important for patient comfort and to diminish odor, which can cause patients and families anxiety. Therefore, choice is important as the selection of a wound dressing which does not need to be changed frequently and can help with pain, anxiety, and absorb odors is preferred. Other interventions for odorous wounds include Metronidazole (systemic and topical), silver dressings, and honey as per provider order. Table 3 provides information on dressing options (Dabiri, et al., 2016, Tilley, et al., 2016). Hospice and palliative care teams, regardless of wound type, should consider consulting with a wound, ostomy, and continence nurse (WOCN) and, according to Tilley, et al. (2016), "preferably with a palliative care background and certification in the hospice and palliative care specialty" (p. 516).

Table 3: Wound Dressing Options

Dressing Type	Details/ Benefits	Type of Wound
Foam dressing	• Multiple shapes and sizes available to fit difficult dressing sites (i.e., heels) and conforms to the body. • Can be left in place for up to 7 days. • Promotes a moist wound environment. • Highly absorbent, prevents strikethrough. • Can be used with topical agents.	• Heavily exudating. • Pressure ulcers. • Surgical wounds. • Venous leg and diabetic ulcers. • Donor sites. • MFWs.
Calcium Alginate	• May be used to cover or fill wound bed. • May act as a hemostatic agent. • Can be left on until saturated. • Interacts with exudate to form a gel, which then works to promote a moist wound environment. • Useful for packing wounds. • Requires a secondary dressing	• Exudating wounds. • Pressure ulcers. • Surgical wounds. • MFWs.
Hydrocolloid	• Can be left in place for up to 7 days. • Promotes a moist wound environment and debridement. • Waterproof and occlusive, which prevents bacterial contamination.	• Exudating wounds. • Pressure ulcers. • Venous leg and diabetic ulcers. • Donor sites. • Dry wounds. • Superficial wounds.
Hydrogel	• Easily removed from wound by irrigation with normal saline/sterile water. • Increases moisture, preventing eschar formation. • Promotes autolytic debridement. • Secondary dressing is required.	• Pressure ulcers. • Surgical wounds. • Venous leg and diabetic ulcers. • Dry wounds. • Partial thickness wounds. • Lacerations. • MFWs.
Honey	• Supersaturated sugar solution with high osmolarity, low water activity. • Bactericidal. • Keeps wound moist while removing necrotic tissue. • Lowers wound pH to promote healing.	• Exudating wounds. • Pressure ulcers. • Surgical wounds. • Venous leg and diabetic ulcers. • Sloughy or infected wounds. • MFWs.
Skin Protectant	• Provides 24-hour protection of intact or damaged skin from bodily fluids, adhesives, and friction. • Does not require a cover dressing.	• Can be used for Stage I and Stage ll pressure ulcers. • MFWs

.

Lastly, as families wait for their loved one to die, they may ask clinicians how much time is left because of the symptoms they are witnessing. It is important for the clinician to provide clear, factual, and supportive information during this time that includes noting the signs and symptoms of nearing death (see Table 1). As death approaches, patients will oftentimes have a dramatic drop in blood pressure, drop in overall body temperature, and extremities may become mottled (reddening and pooling of blood in spaces in the body) and/or feel very cold to the touch. The patient may experience severe unconsciousness, agitation, hallucinations, urinary and/or bowel incontinence, and the jaw will drop as the body is held in a rigid and unchanging position (ANA & HPNA, 2021). Hearing and vision may decrease until death (CCH, 2021).

Once death occurs, a person no longer breathes and has no heartbeat. There may be minimal movements from the arm or leg because of involuntary muscle movement and the release of a small amount of urine or stool (CCH, 2021). After a few minutes, the skin turns pale, waxen, and cool to the touch. Within 30 minutes of a patient's heart stopping, the blood supply will stop moving through the body and any part of the body that is on a firm surface will show signs of lividity, which looks like a dark purple discoloration against the skin (AMBOSS, 2021; Harle, 2017). Approximately 2 to 6 hours after the death, rigor mortis occurs and is first seen in the small muscles around the eyes, neck, and jaw (Shivpoojan, 2018).

Self-Assessment Quiz Question #5

The Center to Advance Palliative Care (CAPC) provides action items for nurses and other healthcare professionals and organizations to support equity and access to hospice and palliative care among vulnerable populations. These include:

a. Collaborating with the social worker on your team about any unmet needs in the population you serve.
b. Developing a vision and mission statement that encompasses reducing health inequity.
c. Listening to patients and families about what matters most to them, and about their greatest worries.
d. All the above.

Care at the time of death

The pronouncement of death is a moving and profound time for the family members and clinicians. It is typically defined as the opinion or determination that, based on a physical assessment, life has ceased (National Conference of Commissioners on Uniform State Laws, 1980). Determination of death does not require consent from the patient's family or a surrogate decision maker (Pope, 2018). In most instances, especially in the in the acute care environment, a physician is responsible for the death pronouncement. If the patient's physician is unable to be present within a reasonable time and the death is because of natural causes or the patient is being cared for in the home, the RN employed by hospice can pronounce death (Brent, 2016). Many states have passed laws that allow registered nurses and/or advanced practice registered nurses to pronounce death; therefore it is essential that nurses recognize specific laws and variances in their state that relate to the location of the death, such as a hospital, nursing home, or home; whom the registered nurse and/or advanced practice registered nurse must notify before pronouncing a death, such as the medical examiner or attending physician; the requirement that the registered nurse or advanced practice registered nurse was caring for the patient; and whether they can fill out and sign the death certificate (Brent, 2016). Different hospitals and care facilities may have their own policies regarding the death pronouncement.

Upon the pronouncement of death, the patient must first be correctly identified by two patient identifiers and per facility policy. The person verifying the death notes the general appearance of the body, unresponsiveness to verbal or tactile stimuli, listens for the absence of apical and carotid pulses and breath sounds, usually for one full minute. The time at which the assessment was completed must be recorded; this is the official time of death. The physical examination, time of death, and family response are then documented in the medical record and may include the following:

- The pronouncer's name and license number.
- A brief description of events preceding death.
- The primary hospice diagnosis.
- Notation of the absence of pulses, respirations, and pupil responses.
- Those present in the room and response during the pronouncement of death.
- Any communication provided to staff or others during the assessment, such as releasing the body to a funeral home or the nurse notifying the patient's attending family, pastoral care, social worker, donor services, and coroner.

Additionally, a patient must be pronounced dead for organ and tissue donation to take place and many jurisdictions, along with the 1986 Omnibus Budget Reconciliation Act (OBRA,) require that a patient's survivors be made aware of the option of organ and tissue donation upon death (Elsevier Clinical Skills, 2020).

Postmortem care

After the pronouncement of death, postmortem care can begin. Postmortem care, which can be provided in the home and in healthcare facilities, involves "caring for a deceased patient's body with sensitivity and in a manner that is consistent with the patient's religious or cultural beliefs" (Elsevier Clinical Skills, 2020). Typically performed by nursing staff, postmortem care should be done as soon as possible to prevent tissue damage or disfigurement and should provide a peaceful and respectful presentation of the patient for family and visitors (Elsevier Clinical Skills, 2020). Cultural and religious beliefs can dictate how the body will be handled after death and should be discussed as part of the patients plan of care before death (Table 4; Pyrek, 2017). It is important to remember that cultural practices may vary, and clinicians should ask the patient and family about religion and beliefs. Universal precautions along with any other infection control procedures must be maintained for infection prevention and to limit bloodborne pathogen exposures (Pyrek, 2017).

Table 4: Religious and Cultural Considerations in Care of the Body Near and After Death.	
Buddhism	• Provide a quiet place for death and maintain strict silence after death. • Incense may be requested to use. • When the person has died, cover the body with a cotton sheet. • Leave the deceased's mouth and eyes open. • Autopsy and organ donation are permitted.
Christianity	• Varying practices at time of death; there are not prescribed rituals for body preparation. • Bible texts may be read near or at the time of death. Protestants receive the sacraments of Holy Communion or sometimes baptism. • Roman Catholics often request sacraments of Penance, Anointing of the Sick, and Holy Communion at the end of life. • In most cases, autopsy and organ donation are permissible.
Hinduism	• Prefer to die at home or in a quiet setting and family members prefer to wash the body after death. • Because of a belief in reincarnation, efforts are made to resolve relationships before death. • The head of a person nearing death should face the east with a lamp placed near the head if possible. • If the dying person is unable to chant mantras, a family member can chant them into the right ear. • Passages from Bhagavad Gita are recited. • Hindus prefer cremation of the body.
Islam	• A Muslim reader recites verses from the Qur'an when the person is near death. • Family members usually prepare the body, and non-Muslims should not touch it. • The person's eyes should be closed after death and the arms and legs straightened. • Autopsy or organ donation is generally not permissible, except as required by law.
Judaism	• Confessional, blessings, and readings from the Torah are traditional. • Sometimes a family member will close the person's eyes and remain with the body until burial, which takes place within 24 hours, but not on the Sabbath. • Organ donation prohibitions may exist in Orthodox Judaism, but not for all Jews. • Autopsies may be considered if organs are not removed.
(Perry, et al., 2018)	

Postmortem care begins by putting the patient in a supine position, elevating the head about 30 degrees, placing a washcloth under the chin to keep the mouth closed, and straightening the limbs. If the eyes are open, gently, and repeatedly massage the eyelids downward and outward; if they remain open, use a strip of tape to keep them closed unless they are being donated, which requires covering them with gauze moistened with normal saline (Elsevier Clinical Skills, 2020). If an autopsy is required, IV lines, tubes, and catheters (capped or clamped) should be kept in place rather than removed, unless facility policy states otherwise (Elsevier Clinical Skills, 2020). These can be removed if no autopsy is required and as facility policy allows (Elsevier Clinical Skills, 2020).

Before washing the patient, a waterproof pad or incontinence brief should be placed under the patient's buttocks as well as any areas that are draining and a towel can be placed under the patient's chin to help keep the mouth/jaw closed (Elsevier Clinical Skills, 2020). Place a clean gown on the patient or any clothing requested by the family, then place a clean sheet over the body up to the chin with arms outside the sheet, if possible (Elsevier Clinical Skills, 2020). Remove any medical equipment when possible and turn down lighting to provide a calm environment for family and visitors to be with the deceased (Elsevier Clinical Skills, 2020). If the patient died from an infectious disease, staff should label the body according to hospital or facility policy. After identifying information about the deceased (e.g., patient's name, hospital number, date of birth, date and time of death, name of attending physician) is written on death identification tags, the tags are placed on the patient's toes or ankles per funeral home, morgue, or facility policy (Elsevier Clinical Skills, 2020).

Postmortem care also includes giving the patient's clothing and jewelry to the family. If the family is not present, personal belongings should be bagged and labeled and may be stored or given to the funeral director for later retrieval by the family (Elsevier Clinical Skills, 2020). The body is then left on the bed for the funeral director or before transportation to the morgue (Elsevier Clinical Skills, 2020).

Supporting families coping with dying

One way clinical staff can provide psychological support to families and caregivers following the death of a patient is allowing them to provide postmortem care for the deceased family member if they choose. They can comb their loved one's hair, wash their hands and face, stroke their head, apply lotions to the arms, wash the entire body, and/or dress their loved one in fresh pajamas or clothing before the body is sent to the morgue or funeral home (Elsevier Clinical Skills, 2020).

In 1969, Viktor Frankl argued that the main goal in a person's life is to actively create and find meaning and value in life. This reflective process at the end of life includes emotional, physical, cognitive, behavioral, and spiritual exploration, and helps many to find understanding and positive transformation (Frankl, 1969).

- Emotional component: exploring one's feelings about a diagnosis with a terminal prognosis.
- Physical component: coping with bodily changes and any significant suffering.
- Cognitive component: thinking about adapting to what is and leaving behind what was.
- Behavioral component: conveying wishes to others and personally acting upon those wishes based on personal values.
- Spiritual component: interpreting life's purpose, unraveling its mystery, and leaving a legacy that explains it all.

As individuals face dying, they may attempt to find meaning in their losses, their lives, their illness, and most importantly, in their own deaths (Smith, 2017). For example, they may attempt to find meaning by asking themselves what it means to be near the end of life, or they may attempt to find meaning by exploring what it means to no longer exist (Smith, 2017).

Supporting colleagues following the death of a patient

Providing care for patients with a life-limiting illness can be stressful for clinical staff, yet it has not been well studied (Rodenbach, et al., 2016). As clinicians support those with a life-threatening illness, barriers remain in the care, communication, and relationship with the patient (Rodenbach, et al., 2016). Studies have shown that physicians who personally have a fear of death have patients with longer terminal hospital stays, and those physicians "who have not accepted their own mortality are more likely to focus solely on biomedical issues rather than dying patients' emotional concerns" (Rodenbach, et al., 2016).

Among hospice and palliative care clinicians this is especially relevant, as frequent exposure to death and suffering can evoke intense emotions and can lead to anxiety, disengagement from patients, and compassion fatigue, which impacts clinician burnout (Cross, 2019). However, such exposure also can yield several positive outcomes, such as greater personal fulfillment and enhanced meaning in life (De Swardt & Fouché, 2017). Therefore, clinicians should focus on the relationship that is shared with the patient but also on their own beliefs about death, dying, and suffering (Rodenbach, et al., 2016). To offer effective communication and support, the clinician should understand and be comfortable with their own attitudes about what the patient is going through by asking (Dignity in Care, 2016):

- How would I be feeling in this patient's situation?
- What is leading me to draw these conclusions?
- Have I checked whether my assumptions are accurate?
- Am I aware how my attitudes toward the patient may be affecting them?
- Could my attitudes toward the patient be based on something to do with my own experiences, anxieties, or fears?
- Does my attitude toward my job help or hinder my ability to treat this patient with care, openness, and respect?

In a study by De Swardt and Fouché (2017), nurses reported that safeguarding the integrity of the patient was a priority and that providing professional and quality care to the patient and the family was seen as significantly important. Stress reduction techniques can be helpful for clinicians during this process and delivery of care. Jordan et al., (2016) maintain that nurses can use problem-based educational strategies to promote learning about ways to cope with stress while ensuring personal safety during this complex professional practice situation. Moreover, using a problem-solving approach as a coping strategy can help with finding meaning in the stressful part of the experience (Alsarqri, 2017). Techniques include deep-breathing exercises to reduce some of the stress (American Holistic Nurses Association, 2017). This type of diaphragmatic breath starts in the belly and draws the diaphragm downward into the abdominal cavity; take slow, full breaths instead of short, shallow ones from the chest (American Holistic Nurses Association, 2017). Healthcare professionals can also consider thinking about a soothing activity, positive thinking, or silence to maintain self-control; rather than paying attention to negative feelings, divert bad thoughts (American Sentinel University, 2017). In addition, the practice of mindfulness while focusing attention on the experiences of the present moment can help with coping (American Sentinel University, 2017).

In the same study, nurses reported that while providing postmortem care, they felt detached from some relationships; they specifically detached themselves professionally and emotionally from the dead patient, the family, and the death experience (De Swardt & Fouché, 2017). This detachment, described by the authors as thanatophobia, or an "intense fear of death or dying" (De Swart & Fouché, 2017, p.1), caused some nurses emotional trauma and challenges when it came to caring for their patients. Techniques to help reduce stress in this situation include using visualization to picture each step in the challenging task and see overcoming each to reach the next step in the care being provided and practice telling oneself that they are confident in the skill of providing competent postmortem care (American Sentinel University, 2017).

Theoretical models

In addition to finding meaning, a variety of theoretical perspectives can help guide the way in which clinicians provide support to those coping with death and dying. These theories can be applied from the time of diagnosis to the time of death. Theoretical models of the dying process help clinicians intervene appropriately and offer the best quality of life for these patients. Theoretical models of the dying process include stage-based, awareness-based, task-based, phase-based, landmarks-based, and spirituality-based models.

The stage-based approach to coping with dying is the most familiar among healthcare providers. This groundbreaking work by Elisabeth Kübler-Ross (1969) outlined the emotional stages of the dying process and includes the five stages of grieving, or accepting death: denial, anger, bargaining, depression, and acceptance (Kübler-Ross, 1969). What this model can teach clinicians is that the underlying philosophy of the stage-based model is not to manipulate and move those with a life-threatening disease through transitions and milestones as death approaches; stages do not occur in a fixed sequence or timeline (Connelly, 2020). More specifically, the Kubler-Ross Five State Model described is:

1. Denial: "I can't believe it", "This can't be happening", "Not to me!", "Not again!". This stage is the initial numbness and shock phase and is usually temporary. It is a "…defense that gives us time to absorb news of change before moving on to other stages" (Connelly, 2020, p.1).
2. Anger: "Why me? It's not fair!" "NO! I can't accept this!", The anger stage reflects how our denial usually turns to anger. Humans then attempt to blame others (Connelly, 2020).
3. Bargaining: "Just let me live to see my children graduate." "I'll do anything if you give me more time. A few more years?" This stage is "an attempt to postpone what is inevitable [and] we start bargaining in order to put off the change or find a way out of the situation" (Connelly, 2020, p1).
4. Depression: "I'm so sad, why bother with anything?" "What's the point of trying?". According to Connelly (2020), this occurs "when we realize that bargaining is not going to work [and] the reality of the change sets in. At this point we become aware of the losses associated with the change and what we have to leave behind."
5. Acceptance: "It's going to be OK." "I can't fight it; I may as well prepare for it." This last stage occurs when a person realizes that "fighting the change is not going to make it go away" (Connelly, 2020, p.1). It is important to note that this is not the same as being happy, but rather a resigned attitude towards the change and a sense that they must get on with it (Connelly, 2020).

Awareness-based theory by Glaser and Strauss (1968) provides a theoretical model for coping with dying that is based on a context of awareness and how the situation is perceived by significant others in the person's life. For decades, the Glaser and Strauss awareness-of-dying model has guided research on patients' awareness of their conditions. The model describes four types of awareness contexts: closed awareness, suspected awareness, mutual pretense, and open awareness.

- In closed awareness, the patient does not know they are, but everyone else is aware. Often, family members keep the news from the patient. In closed awareness, the nurse and social worker do not discuss the patient's illness directly with the patient.
- In suspected awareness, the patient suspects what others know and attempts to find out more information about the prognosis. The patient becomes suspicious as they become increasingly ill. Although the patient may want to know how sick they really are, the patient is not told that they are dying. A patient's context of awareness will influence how they communicate with family members, friends, and clinicians who care for them. Communication depends on the patient's level of awareness. With closed awareness, communication is restricted. The more the patient is aware, the greater the opportunity to share concerns, issues, and needs.
- In mutual pretense, the patient, family members, and clinicians pretend they do not know the prognosis. Unless the patient initiates the conversation about impending death, no one talks about it. Everyone involved acts as though the patient is going to live. Although clinicians can explore a life review and reminisce with the patient, it is difficult to do so if everyone is pretending that the patient is not going to die.
- In open awareness, the patient is aware of impending death and is both preparing for it and discussing it. During open awareness, the patient can talk openly about forgiveness, gratitude, and love. Although open awareness allows those who are dying to become aware of their approaching death, not everyone wants to know when they will die. This awareness allows clinicians to review not only the patient's life, but also the meaning of their dying and death (Glaser & Strauss, 1968).

What this model can teach clinicians who work with those who are living with a life-limiting illness is that the context of awareness will influence how people communicate with their family members, friends, and clinicians who care for them. Any communication about the terminal illness or the dying process with the patient depends on the patient's level of awareness. If the patient has closed awareness, communication will be restricted. Conversely, the more the patient is aware, the greater the opportunity to share concerns, issues, and needs.

While dealing with each phase that brings the patient closer to death, there are certain tasks that need to be accomplished while living with life-threatening illness. In 1992, Charles Corr created a model that focuses on how people with a life-threatening disease cope with dying by completing four areas of taskwork (Kilcrease, 2021). These dimensions include physical, psychological, social, and spiritual tasks (Kilcrease, 2021).

- Physical tasks involve managing bodily needs and minimizing physical distress, such as by controlling pain and constipation.
- Psychological tasks maximize psychological security, autonomy, and richness in living.
- Social tasks enhance significant attachments and address the social implications of dying.
- Spiritual tasks address meaningfulness, connectedness, and transcendence.

This model teaches clinicians who work in palliative care and hospice care that as individuals find ways to manage their bodily changes, attempt to maintain a healthy mental perspective, and cherish their relationships, they are also exploring what is sacred to them in the time they have left.

The phase-based theory of dying was developed in the late 1970s by Pattison for people with a life-limiting disease. This theoretical model of the dying process focuses on the living-dying interval that occurs from when the patient learns that death is imminent to the actual death, during which the patient oscillates between denial and acceptance of the prognosis (Pattison, 1978). Three clinical phases take place during the living-dying interval phase: acute, chronic, and terminal. As the patient moves through each of the phases, the dying process is determined by their feelings and reactions, which can continually change (Pattison, 1978). What this model can teach clinicians who work in palliative care and hospice care is to recognize how the varying changes emotionally affect the patient from the very first moment of learning of the terminal illness to the moment of death (Pattison, 1978).

- During the acute crisis phase, the patient is challenged by understanding that a dying process beyond their control influences the death. Close friends and family help the patient deal with the reactions to the news.
- During the chronic phase, the patient has a keen awareness of concurrently living and dying. Friends and family help the patient respond appropriately to what is happening.
- During the terminal phase, the patient withdraws from the outside world and becomes aware of the need to conserve their internal energies. Friends and family compassionately prepare the person to move into this last phase

Doka (1996) describes another theory of life-limiting illness that includes the prediagnostic, acute, chronic, terminal, and recovery landmarks. Each landmark then has an associated task of coping. In the prediagnostic landmark, individuals suspect an illness and seek out medical attention (Doka, 1996). The acute landmark, initiated by the diagnosis, is when individuals attempt to understand the disease, maximize health, develop coping strategies, explore the effects of the diagnosis, express feelings, and integrate the present reality into their sense of past and future (Doka, 1996). The chronic phase involves managing the symptoms and side effects while carrying out health regimens, normalizing life, maximizing social support, expressing feelings, and finding meaning in the suffering (Doka, 1996).

Those who have a life-threatening disease can inform a family member or close friend of the location of insurance documents and important papers, contact people in their address books, renew old friendships, and express their love to others. By addressing unfinished business, whether practical or emotional, dying individuals feel in control. In the terminal phase, individuals cope with dying by managing pain, symptoms, health procedures, and related stress. Dying persons prepare for death by saying goodbye and finding meaning in life and death. Some individuals experience a recovery phase during which their disease is cured or in remission.

What Doka's model (1996) can teach clinicians who work in palliative care and hospice care is that there are tasks to complete in each phase of dying, from setting up the first appointment with a physician to learning how to adjust to the new reality to managing the physical, emotional, cognitive, behavioral, and spiritual changes and preparing for death. Landmarks and taskwork for the end-of-life clinicians who work with patients who have a life-threatening disease can help them to review their lives, find meaning in their lives, complete important tasks, and accept the reality of death. This approach is based on the work of Ira Byock (1996), who identified the importance of patients with a life-threatening disease attaining certain landmarks before death. At each landmark, individuals have taskwork to complete. These landmarks include completing one's affairs, resolving relationships, finding a sense of meaning in one's life, experiencing love of self and others, acknowledging the finality of life and a sense of a new self, and letting go. A patient's spiritual perspective across the dying trajectory stems from their belief system; faith; values; life's purpose; and perception of the meaning of their existence in relation to others, including family members and close friends, nurses, physicians, social workers, and pastoral counselors (Fitch & Bartlett, 2019). Spiritual distress is just as critical as body and mind distress (Fitch & Bartlett, 2019). A spiritual approach to coping with dying can enhance the patient's life and can be instrumental for those who have a life-threatening disease and for their family members (Fitch & Bartlett, 2019)

What this model can teach clinicians who work with those who are coping with life-threatening illness is that spirituality is woven throughout a person's beliefs about their illness, even if the term spirituality or religion is never mentioned. Clinicians can begin to assess the spirituality of patient by asking "Does spirituality play a role in your life?" Once addressed, clinicians can focus on the wholeness of the patient, which includes the patient's body, mind, and spiritual essence. Additional spiritual questions to explore with patients are as follows:

- What items of special meaning do you want in your room?
- What can you tell your spiritual companion about the people you want – or don't want – around you?
- How do you want God to be present with you as you go through your death?
- Dying often takes days or weeks. How do you like to be comforted and reassured?
- Do you want or expect to have visions of loved ones as you prepare to die? If so, who might you see?
- What spiritual insights have you recently had?
- What are the spiritual understandings you feel you have lived your life by?
- What are your beliefs about the afterlife?
- What do you think will happen to yourself/your soul in the afterlife?
- Do you have special prayers/readings you want said?

(Anderson & Sacred Dying Foundation, 2017)

Although chaplains, community-based clergy, and pastoral counselors recognize and explore spiritual distress, all professional care providers can inquire into this significant part of the patient's being (CCH, 2020). Bowman (2016) notes that spirituality is now routinely included in palliative care and that spiritual care is not synonymous with religious practice. This difference may cause tension for those providing end-of-life care because, all too frequently, patients near the end of life may reveal things when ready to clinicians with whom they experience comfort; clinicians need to be ready to address any spiritual and grief concerns when voiced (Bowman, 2016). Accordingly, a palliative care team may help patients and families move toward acceptance and peace if they are challenged by the illness and are looking for spiritual support (Ernedoff & Cox, 2017; Moestrup & Hvidt, 2016).

Theoretical models of the dying process help clinicians see that there is not only one way to provide support at the end of life (ANA & HPNA, 2021). Each patient faces terminal illness and dying in their own unique way. Clinicians can use these models as a guide while providing care at any point in the dying trajectory. Clinicians must realize that they need to individualize their approach to end- of-life care with patients based on the patient's awareness level, what is sacred to them, and what struggles they may be facing (NHPCO, 2021). Clinicians can note how the principles of the theories are reflected in their practice and focus on how they can adapt or modify the concepts of the coping-with-dying theories to meet the needs of those they help. Moreover, they can promote a discussion with those they help about the principles noted in the theories (ANA & HPNA 2021).

Case study 1

Mrs. Osmani is an alert and oriented 88-year-old White woman who was recently diagnosed with heart failure with an ejection fraction of 20%. It has been 10 years since the death of her beloved husband and all of her children are deceased. Most of her friends are also deceased or living in nursing homes. In addition, her best friend Carol has Alzheimer's disease. Mrs. Osmani lives in her own home and is cared for by a live-in assistant, Marina. Mrs. Osmani has been under the care of Dr. Frimet for the past 4 years.

Marina takes Mrs. Osmani to see Dr. Frimet, who explains to Mrs. Osmani that her heart failure is not curable, and her life expectancy is limited. With a compassionate tone and in language the patient understands, the physician explains that she probably has less than 6 months to live. With Marina by her side, Mrs. Osmani listens as Dr. Frimet tells her about hospice care and she agrees to an introductory meeting with the interdisciplinary team, which is quickly arranged.

The next day, Mrs. Osmani and Marina meet with the hospice nurse, Sandra, and the social worker, Tim. They spend the next 2 hours discussing the philosophy of hospice care and services that can be provided through the HMB. Sandra explains the guidelines for determination of appropriateness for hospice services. After Sandra conducts a patient assessment, she explains how hospice can provide care in Mrs. Osmani's home. Marina states that she is fearful that hospice wants to take her job away. Tim makes it clear that Marina will still be Mrs. Osmani's primary caregiver, and the hospice team will support Marina as she cares for her.

Mrs. Osmani appears anxious about the home visits and asks what Sandra will do during visits. Sandra attempts to alleviate any fears and explains that during each visit she will perform a physical assessment, discuss any problems, and update the plan of care according to Mrs. Osmani's wishes. In very simple language, Sandra explains that the assessment at each visit will focus on any physical symptoms that Mrs. Osmani may report. Sandra discusses the questioning and listening that she will perform regarding expected symptoms such as pain, changes in appetite, and bowel and bladder function. Sandra offers a detailed explanation of the physical assessment she will perform for common respiratory issues as well as alterations in skin integrity, urinary elimination, and cardiac/circulatory function. She explains everything in nonmedical language and frequently asks Mrs. Osmani and Marina if they understand or have any questions or concerns.

Sandra also discusses her role in managing Mrs. Osmani's medications and consulting with Dr. Frimet. She describes a symptom management comfort pack that will be kept in the home and includes medications for pain or other distressing symptoms that Mrs. Osmani may develop. Sandra explains that she will visit weekly to oversee Mrs. Osmani's care, but Marina will remain her primary caregiver. If Mrs. Osmani or Marina believe they need further help, hospice can provide an aide several times a week to assist with Mrs. Osmani's care. Tim, the social worker, then recommends certain safety measures to prevent falls, including adequate lighting, adequate phone access, and removal of area rugs.

Supplemental oxygen is also discussed because it is commonly prescribed for patients with heart failure. Tim explains to Mrs. Osmani that he will be responsible for ordering home medical equipment, such as a hospital bed and a wheelchair, should they be needed. During this conversation, Mrs. Osmani asks for a walker. Tim tells Mrs. Osmani and Marina that if either of them has any problems coping, he, along with the bereavement and spiritual counselors, can help with emotional support.

When Tim asks about advance directives, Mrs. Osmani gives him a copy of her living will and states that her neighbor and close friend, Ida, is her healthcare surrogate and understands her end-of-life wishes. Mrs. Osmani mentions that a few weeks before, Ida expressed a belief that hospice providers euthanize all their patients. Tim explains that hospice does not euthanize people. He goes on to explain that the overriding objective of hospice care is to develop a working partnership with the patient. Tim will help Mrs. Osmani in identifying any problems with her care and developing goals to address these care problems.

Mrs. Osmani expresses concerns about the role of Dr. Frimet in her care. She says that she trusts Sandra and Tim, and although she wants to begin hospice care, she does not want to lose her physician-patient relationship with Dr. Frimet. Tim assures her that Dr. Frimet can remain her primary care physician, and Sandra explains that she will make frequent reports to Dr. Frimet, who will continue to provide medical orders for her care.

At the end of the meeting, Tim schedules a meeting for Mrs. Osmani and Marina with the bereavement and spiritual counselor for next week. Sandra gives Marina a magnet with the hospice contact phone numbers and Marina later places it on the refrigerator for easy access. Before leaving, they each schedule follow-up home visits and ask if Mrs. Osmani and Marina have any further questions.

Questions

1. How did Dr. Frimet present hospice care to Mrs. Osmani? Why was hospice care a good choice for Mrs. Osmani?
2. What are the actions of the nurse and the social worker in explaining hospice services? Were their explanations helpful?
3. Were all of Mrs. Osmani's concerns and emotions adequately addressed during this visit?
4. How could the social worker have better addressed the feelings and concerns of Mrs. Osmani and her caregiver?

Responses

1. Dr. Frimet informed Mrs. Osmani that she has a limited life expectancy. He did not seem uncomfortable informing her of her terminal illness, and he did not neglect to explain hospice care as an alternative to her current treatment. Hospice can be offered to patients only when the attending physician determines that the patient has a time-limited prognosis and curative care is no longer appropriate. During their initial meeting, the hospice nurse and social worker spent extensive time discussing hospice care with Mrs. Osmani and Marina, her caregiver Mrs. Osmani and Marina understands that hospice is not going to take over Mrs. Osmani's care. Although an aide can come in several hours a week and a nurse will oversee the patient's care, the primary responsibility of care remains with Marina. This is a good option for both Mrs. Osmani and Marina.
2. When Mrs. Osmani appeared worried about her home visits with hospice staff, Sandra took the time to alleviate any fears and explain in detail what services she would perform each week as Mrs. Osmani's hospice nurse. This dialogue encouraged Mrs. Osmani's trust in Sandra and the rest of the hospice team. When learning about Mrs. Osmani's fear that patients under hospice care are euthanized, Tim, the hospice social worker, clearly explained that hospice does not euthanize patients. Mrs. Osmani seemed reassured by hearing that Tim's role includes identifying any problems that Mrs. Osmani may have and helping to alleviate her suffering.

3. Although Tim recommended appropriate safety measures, he neglected to discuss Mrs. Osmani's many losses. In fact, both Sandra and Tim failed to address Mrs. Osmani's potential emotional concerns. Her husband and both children have died, she has lost many friends, and her best friend has Alzheimer's disease. Clearly, she may have bereavement issues because of her losses.
4. Although it is not Tim's primary job as the social worker to address bereavement issues, as an illustration, he could have taken the time to see how much of a concern Mrs. Osmani's losses are to her and whether they are compounding any other losses she may be experiencing. Although he did recommend an initial visit with the bereavement and spiritual counselor, he did not take the time to discuss the counselor's role. Because Marina cares deeply for Mrs. Osmani, her anticipatory grief needs should be examined as well.

Common myths and barriers

Although hospice and palliative care allow patients the autonomy in dealing with their own illness, there are still misconceptions that contribute to fear and resistance. These misconceptions then cause barriers to care delivery (NHPCO, 2021). Many people consider hospice synonymous with death, giving up hope, euthanasia, or assisted suicide (Landers, 2017). Zimmermann and colleagues (2016) found when palliative care was introduced to patients, they reported feeling shock and fear, resistance to it, and a lack of relevance to them. The American Hospice Foundation (n.d. -a) identified common myths of hospice and palliative care that are listed in Table 5.

Table 5: Common Myths of Hospice

Myth #1: Hospice is a place.	False: Hospice is a philosophy and hospice care takes place wherever the patient calls home.
Myth #2: Hospice is only for people with cancer.	False: More than one-half of hospice patients have diagnoses other than cancer. Hospices serve many HIV/AIDS patients and the end-stages of chronic diseases such as COPD, Alzheimer's, cardiovascular, and neuromuscular diseases.
Myth #3: Hospice is only for old people.	False: Although most hospice patients are older, hospices serve patients of all ages. Many hospices offer clinical staff with expertise in pediatric hospice care. Almost 20% of hospice patients are under 65 years of age.
Myth #4: Hospice is only for the dying person.	False: As a family-centered concept of care, hospice focuses as much on the grieving family as on the dying patient. Most hospices make their grief services available to the community at large, serving schools, churches, and the workplace.
Myth #5: Hospice can help only when family members are available to provide care.	False: Recognizing that terminally ill people may live alone or with family members unable to provide care, many hospices coordinate community resources to make home care possible. Or they help to find an alternative location where the patient can safely receive care.
Myth #6: Hospice is for people who don't need a high level of care.	False: Hospice and palliative care is serious medicine and can be quite high-level. Most hospices are Medicare-certified, requiring that they employ experienced and highly skilled medical and nursing personnel. There are four levels of hospice that reflect the changing needs patient may have while under care. Hospices also offer state-of-the-art palliative care, using advanced technologies to prevent or alleviate distressing symptoms.
Myth #7: Hospice is only for people who can accept death.	False: While those affected by terminal illness struggle to come to terms with death, hospices gently help them find their way at their own speed. Many hospices welcome inquiries from families who are unsure about their needs and preferences. Hospice staff are readily available to discuss all options and to facilitate family decisions.
Myth #8: Hospice care is expensive.	False: Most people who use hospice are entitled to the Medicare Hospice Benefit. This benefit covers virtually all hospice services and requires little, if any, out-of-pocket costs. This means that there are no financial burdens incurred by the family, in sharp contrast to the huge financial expenses at the end of life that may be incurred when hospice is not used. Medicaid and most private insurances also have hospice benefits where services are covered.
Myth #9: Hospice is not covered by managed care plans.	False: While managed care organizations (MCOs) are not required to include hospice coverage, Medicare beneficiaries can use their Medicare hospice benefit anytime, anywhere they choose. They are not locked into the end-of-life services offered or not offered by the MCOs. Those that do have MCO plans may have hospice coverage that is detailed in their plan.
Myth #10: Hospice is for when there is no hope.	False: When death is in sight, there are two options: submit without hope or live life as fully as ever until the end. The gift of hospice is its capacity to help families see how much can be shared at the end of life through personal and spiritual connections often left behind.

(American Hospice Foundation, n.d. -a, p.1)

Other barriers to the delivery of hospice and palliative care include both the education and training of healthcare providers in this specialty area. The National Consensus Project for Quality Palliative Care (NCP) aims to formalize and delineate evidence-based processes and practices for the provision of safe and reliable high-quality palliative care in all care settings (National Coalition for Hospice and Palliative Care, 2018). The overview and scope of the 4th edition of the NCP Clinical Practice Guidelines for Quality Palliative Care is to:

- Improve access to palliative care for those with serious illness in all care settings by integrating palliative care principles and best practices into routine assessments and care.
- Formalize evidence-based practices for palliative care for seriously ill adults and children in all care settings.

- Provide guidelines to assist in developing palliative care reimbursement mechanisms that are linked to standardized care, as payers (e.g., Medicare Advantage plans) are exploring ways to pay for better access to palliative care (National Coalition for Hospice and Palliative Care, 2018).

In 2017, Kilcullen and Ireland studied the palliative care perceptions of eight Australian neonatal nurses, each with at least 5 years of experience in neonatal nursing. The nursing staff reported factors that supported the delivery of neonatal palliative care, including leadership; clinical knowledge; morals, values, beliefs, and themes related to family emotional support; communication with parents; and unit practices (Kilcullen & Ireland, 2017). Among this same group, barriers to the delivery of quality neonatal palliative care included level of staff education, lack of privacy, isolation, staff characteristics, and systemic issues (e.g., policy and procedures; Kilcullen & Ireland, 2017).

The American Nurses Association (ANA) and Hospice and Palliative Nurses Association (HPNA; 2017) maintain there are educational challenges associated with palliative care practice in nursing that include a lack of preparatory education and exposure to palliative care principles within nursing curricula, palliative nursing clinical practicum experiences, and professional mentoring. In response, hospice and palliative care competencies were created by the American Association of Colleges of Nursing (AACN, 2016) for undergraduate nursing programs. Competencies include the "promotion of need for palliative care for seriously ill patients and their families, identify the dynamic changes in population demographics, health care economics, service delivery, caregiving demands, and financial impact of serious illness on the patient and family, recognize one's own ethical, cultural and spiritual values and beliefs about serious illness and death, demonstrate respect for cultural, spiritual and other forms of diversity for patients and their families in the provision of palliative care services, and educate and communicate effectively and compassionately with the patient, family, health care team members, and the public about palliative care issues" (AACN, 2016). The full list of competencies is available at the AACN website.

Because palliative nursing specialty practice, including hospice, is usually overlooked within healthcare institutions, nursing academic, and professional development curricula, the ANA and HPNA recommend that the End-of-Life Nursing Education Consortium (ELNEC) curricula should be the standard for primary palliative nursing education for prelicensure, graduate, doctoral, and continuing education for nurses (2017). The ELNEC project is a national and international end-of-life educational program administered by the City of Hope and the American Association of Colleges of Nursing and designed to enhance palliative care education in nursing (AACN, 2021). ELNEC recognizes that nurses need to be educated in ways to improve the quality of care and focus on palliative nursing care, pain and symptom management, ethical issues, cultural considerations, communication, loss, grief and bereavement, and the patient's final hours (AACN, 2021). As of April 2021, over 40,127 nurses and other healthcare professionals across the United States and internationally have completed an ELNEC train-the-trainer course (AACN, 2021). The ELNEC curricula is divided into specialty areas: Undergraduate/ New Nurse Graduate, Graduate, Core, Critical Care, Geriatric, and Pediatric (AACN, 2021). The value of both the AACN competencies as well as ELNEC is that they contribute to the education and training of healthcare professionals, but also assist acute, post-acute, and community organizations to achieve and maintain the delivery of high-quality, coordinated hospice and palliative care (AACN, 2021).

Case study 2

Robert is an 87-year-old male patient who was diagnosed several weeks ago with pancreatic cancer that was found to be advanced. Robert has been undergoing radiation therapy to shrink the cancer, control his symptoms, and prolong his life. His medical oncology team has also referred Robert for chemotherapy after his radiation therapy is complete. Robert is informed that his pancreatic cancer is "locally advanced," meaning that the cancer has not yet spread to distant locations in the body but has extended into local areas around the pancreas. Robert understands that his type of pancreatic cancer is very difficult or impossible to surgically remove completely. In addition, Robert has been losing weight and appears slightly jaundiced. He explains to his primary care nurse that he feels "so weak" all the time. Robert reports that he was experiencing some pain, but the radiation therapy has been helping with relieving his pain somewhat.

Robert's oncologist, Dr. Rupert, calls a family meeting to discuss Robert's status and goals of care, and to introduce the integration of palliative care into his treatment plan. Robert's wife, Mary, and his two middle-aged daughters show great concern for Robert's condition and prognosis during the meeting. Dr. Rupert explains that, although he cannot predict Robert's life expectancy, he does not expect Robert's condition to permanently improve or his symptoms to completely disappear. When Robert states that he does not want treatment to extend life given his condition, his family agrees with this decision. They also do not want to continue Robert's suffering given his prognosis. Dr. Rupert clarifies the decision to write a do-not-resuscitate order with Robert, who gives his consent to write the order.

Dr. Rupert then introduces Diane, the palliative care nurse in the hospital. Diane explains that she will assess Robert and his family to determine their level of distress and functioning so that an appropriate plan of care to support everyone's needs can be developed. The integration of palliative care into Robert's current treatment plan is being offered to Robert to improve his quality of life. Quality of life is improved by providing prevention and relief of suffering and early identification and treatment of pain. Diane describes how palliative care goes on even after Robert and his family may decide to stop treating his pancreatic cancer. Diane then schedules a time with Robert and his family to conduct a palliative care assessment of their physical, psychological, social, and spiritual needs.

Questions

1. What will Diane review and discuss with Robert and his family during the hospital-based palliative care assessment? Which decisions will be addressed?
2. What might Robert's palliative care routine and services include?
3. How will Robert's quality of life improve by receiving palliative care?

Responses

1. During the palliative care assessment, Diane will assess Robert's and his family members' quality of life. To do so, Diane will assess their physical, psychological, social, and spiritual aspects of suffering. Assessment and treatment of pain, as well as support for any other issues identified during the assessment, will be provided. Discussion and decisions about Robert's and the family's goals of care are paramount. The benefits and risks of any treatment options will be considered before making any determination about treatment choices. Diane will conduct a thorough assessment of any psychological, social, spiritual, or existential needs of Robert or the family unit. Stress is a common symptom of patients with serious illness, and Diane will address any reports or symptoms of stress in Robert or the family unit. A decision point that might come up is when to stop treating Robert's pancreatic cancer. This will be a very difficult decision and should include Robert, his family, perhaps close family friends or religious/spiritual leaders, and his healthcare team.
2. The integration of palliative care in Robert's plan of care will begin with an assessment of the quality of care that is currently being provided. Diane will emphasize that palliative treatment does not mean ending care for Robert. In addition to Robert's current care providers, it is also routine practice for palliative care specialists to co-manage the patient's care. Palliative care services for Robert may include the following:
   - Providing relief from pain and other physically distressing symptoms.
   - Providing a caring approach that embraces psychological, social, and spiritual support for Robert and his family members.

- Offering a support system to help Robert live as actively as possible until death and to help his family cope in their bereavement
- Incorporating services as early as possible in Robert's course of illness, in conjunction with other therapies that are intended to prolong life, to better understand and manage clinical complications

3. By using a palliative care team approach to address the needs of Robert and his family, including bereavement counseling if indicated, quality of life is improved for Robert and his family. Multiple care providers, including oncologists and other medical providers, primary nurses and nursing assistants, chaplains and other religious leaders, and social workers, will all work together to meet Robert's needs, reduce distress, and minimize suffering.

Case study 3

Baby Brooke suffered a prenatal hypoxic injury of unknown etiology, was born at 37 weeks' gestation at a local hospital center and had Apgar scores of 3 at 1 minute and 6 at 5 minutes. She was intubated, provided ventilation support, and transferred to a neonatal intensive care unit (NICU) outside the hospital facility 90 minutes away from the family home. Baby Brooke developed seizures on day 1 of life and was in the NICU for 2 months until seizures were controlled with Phenobarbital (initial), then Levetiracetam (maintenance) and she was extubated and breathing independently and effectively. She was discharged to home with her parents, Kelly (19 years old) and Jim (21 years old) with an apnea monitor, which both parents and all grandparents received training on. Kelly and Jim currently do not have full time work and live with Jim's parents. Kelly's parents are involved in the care of Brooke, however, they are not supportive of Kelly and Jim's relationship, as they are not married.

At 3 months of age, after suffering from several apneic episodes that required Kelly and Jim to stimulate Brooke along with more frequent and longer lasting seizures at home, Brooke's pediatrician sent her to the emergency room (ER) for further medical evaluation, treatment, and to admit her to the pediatric intensive care unit (PICU). At the same time, he referred the family to the hospital's palliative care team to be evaluated for the potential of a life-limiting brain injury. Jim's parents were supportive; however, they were concerned about the distance (90 miles away), the cost of this type of consult, and what it means to have palliative care. Brooke is covered by Medicaid for her medical care.

Upon admission to the ER, Brooke was crying and inconsolable. Her mother was cradling and rocking her to try to soothe her. Brooke's vital signs were stable, except for her respiratory effort; it was tachypneic, yet weak, and her oxygen saturation (SaO2) was 88% on room air (RA). The RN provided Brooke with 4LPM of oxygen via a nasal cannula, which increased her SaO2 to 92% and reduced her inconsolability. After evaluation by the ER, PICU, and pediatric surgical teams, Brooke was admitted to the PICU where the palliative care team provided a consult. A few days later, the infant received a tracheostomy and g-tube placement because of her apnea and her ineffective swallow; there were no complications. Parents and grandparents were informed of this plan. Three weeks later, she was sent home with her parents and required to be on home ventilator support and intermittent tube feedings, which required around-the-clock home care nursing. The palliative care team also provided a home care plan to help manage Brooke's comfort.

At 8 months of age, Brooke was referred to hospice care by the palliative care team after multiple referrals to the ER by the pediatrician and extended re-admissions to the PICU for seizures. After being evaluated by the PICU team, child life, social work, nutritional services, and multiple ancillary services, requests were made to nursing to help with advanced care planning. Brooke's pediatrician, however, did not initially agree that Brooke was suffering from a life-limiting or terminal illness and informed the family of his opinion. Two weeks later, after Brooke suffered from more seizures and deteriorated neurologically with loss of consciousness, further meetings occurred without the palliative care team; however, the team agreed with the terminal prognosis and diagnosis.

Unfortunately, Brooke's parents did not agree with the healthcare team and the family didn't agree among one another. Mom wanted to do everything possible and did not believe Brooke was deteriorating nor did she believe the prognosis. She believed the PICU team was providing too much morphine, which was causing her not to wake up. Dad did believe Brooke's health status and prognosis and wanted to move forward with hospice care. Brooke's grandparents (Kelly's parents) sided with Jim and wanted the best care possible, recognized the need for hospice care, but didn't want Brooke to die at home. When approached by the family, the pediatric nurse was unable to provide any information on options regarding advanced directives or hospice care. The nurse requested a social work consult, but no one was available. The family could not come to an agreement and Brooke was not admitted into hospice care. Brooke remained in the PICU until her death 6 days later. Her parents and grandparents planned on being in the hospital that day but were unable to be with Brooke when she died.

Questions:

1. Brooke's care was complex from the beginning and most likely was impacted by what factors?
2. When would have been the best time to refer Kelly and Jim to the palliative medicine team?
3. What is the biggest barrier to hospice care in this case and among many other pediatric patients?

Responses:

1. Brooke's care was complex from the beginning because of multiple factors, including having multiple disciplines involved in her care, including several subspecialty care teams. In addition, the care professionals, including the nursing staff and social worker, most likely did not have the skills or tools to educate and help the family be more involved in the decision-making process. Lastly, Brooke's parents were young and reliant on their own parents, and quite possibly limited in their understanding and capabilities.
2. Understanding that Brooke suffered a prenatal event, a palliative care consult would have been optimal during the prenatal period. An additional opportunity would have been during Brooke's time in the NICU, instead of waiting until finally receiving this service in the PICU. There were several lost opportunities to help the family become comfortable and confident in this type of care. One of these opportunities missed by the PICU team itself was notifying the palliative care team when conflict arose; instead of calling that team, the nurse called the hospital social worker, who was unavailable. Calling the palliative care team to assist would have improved the communication and possibly the acceptance of hospice care.
3. There were several confounding factors in Brooke's hospice referral. The couple's age, poor socioeconomic status, living in a rural area with limited access to healthcare providers that delayed identification of health challenges and difficulties. These factors all led to a delay in admission to hospice care and the acceptance of a terminal condition by her family.

Conclusion

This course provided an overview of hospice and palliative care and illuminated the importance and recent growth of this specialty area. It also included a focus on hospice services as defined by the Medicare hospice benefit, quality metrics, and the delivery of care. Increased understanding by nurses and other clinicians is crucial to providing compassionate care. The goal of hospice and palliative care is to reduce the patient's distressing symptoms (physical, psychological, social, and spiritual), no matter how young or how old they are, and to improve their quality of life. Making appropriate and timely referrals for hospice and palliative care is one way that clinicians can prevent needless suffering for patients with life-limiting conditions.

Resources

- Aging With Dignity
  - https://agingwithdignity.org
- American Academy of Hospice and Palliative Medicine
  - http://aahpm.org
- American Association of Colleges of Nursing End of Life Nursing Consortium
  - https://www.aacnnursing.org/ELNEC
- CaringInfo (National Hospice and Palliative Care Organization)
  - https://www.caringinfo.org
- Center to Advance Palliative Care
  - https://www.capc.org
- Centers for Medicare and Medicaid Services
  - https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/Hospice#:~:text=Hospice%20Levels%20of%20Care,enrolled%20in%20the%20hospice%20benefit.&text=A%20patient's%20home%20might%20be,patient%20isn't%20in%20crisis
- Dignity in Care
  - https://dignityincare.ca/en/
- Hospice and Palliative Nurses Association
  - https://advancingexpertcare.org
- Hospice Foundation of America
  - https://hospicefoundation.org
- National Association for Home Care & Hospice
  - https://www.nahc.org
- National Hospice and Palliative Care Organization
  - https://www.nhpco.org

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HOSPICE AND PALLIATIVE CARE FOR HEALTHCARE PROFESSIONALS

Self-Assessment Answers and Rationales

1. The correct answer is B.

Rationale: Hospice and palliative care are not the same. Palliative care is the overarching care of those with serous or advanced illness, in which hospice is a subset. Hospice is not only paid for by private insurance. Other sources of payment for hospice services are veteran's benefits, self-pay, charity, Medicaid, or the Medicare Hospice Benefit.

2. The correct answer is A.

Rationale: The 4 levels of hospice care are routine, continuous, general inpatient, and respite care.

3. The correct answer is C.

Rationale: Only patients who have been diagnosed with an advanced or life-limiting illness and determined by a physician to have 6 months or less to live can qualify for hospice care. Having a family is not part of the hospice certification process.

4. The correct answer is C.

Rationale: Both hospice and palliative care delivery center around quality of life and working towards relief of physical and psychosocial symptoms.

5. The correct answer is D.

Rationale: CAPC recommends a, b, and c as ways for healthcare providers to support access and equity for the delivery of hospice and palliative care to minority, vulnerable, or underserved populations.

Course Code: ANCCNJ05HP

Managing Difficult Patients for Healthcare Professionals

5 Contact Hours

Release Date: August 24, 2021 **Expiration Date:** August 24, 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 health care 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

Healthcare professionals will encounter difficult or hard to manage patients during their career. Examples of these difficult encounters include workplace violence, non-adherence to medical treatments, and manipulation of caregivers. This course explores how healthcare professionals can avoid potentially violent situations and work with difficult patients by being prepared and recognizing the signs and risk factors for these occurrences. De-escalation skills, diagnosis, preventative measures, training, and planning are all presented in this course to help healthcare professionals respond to difficult patients and ensure a healthy environment for everyone.

Learning objectives

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

- Interpret the early warning signs of workplace violence in patients who are aggressive.
- Apply healthcare professional interventions for managing patients who are assaultive or have the potential to engage in workplace violence.
- Differentiate risk factors associated with nonadherence.
- Compare healthcare professional interventions that may be used when caring for patients who are nonadherent.
- Distinguish ways in which manipulative behavior can be identified.
- Choose effective healthcare professional interventions for patients who demonstrate manipulative behaviors.

How to receive credit

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

CE Broker reporting

Elite, 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, New Mexico, South Carolina, or West Virginia, your successful completion results will be automatically reported for you.

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Activity director

Lisa Simani, MS, APRN, ACNP

Disclosures

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

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Course verification

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

INTRODUCTION

Hospitalization can sometimes be frightening, disorientating and may even cause a patient to resort to behaviors that include hostility, noncompliance, and manipulation. Healthcare professionals working in a general hospital setting may not have been given specific instructions in handling such situations. In acute care settings, security staff frequently manage the occasional behavioral incident associated with patient aggression. However, psychiatric healthcare professional personnel are trained in the management of aggressive behavior and crises.

Healthcare institutions must take necessary precautions to protect healthcare professional personnel from workplace violence. The Occupational Safety and Health Act of 1970 requires that employers ensure each employee has a place of employment that is free from recognized hazards that are causing, or are likely to cause, death or serious physical harm (Occupational Safety and Health Administration [OSHA], 2017).

Healthcare professionals may experience difficulty with patients who are noncompliant or nonadherent treatment. The concept of noncompliance, or nonadherence, is a subject of debate in healthcare. At issue is the right of the patient to choose a treatment course that is different from the recommendations of the healthcare team. Discovering the cause of nonadherence is a necessary first step. If it can be determined, then patient education or problem solving by the healthcare professional - may assist in future adherence. Helping patients truly understand the risks of not following the treatment regimen can go a long way toward achieving better adherence.

Another way patients may demonstrate difficult behavior in a hospital setting is through manipulation. The term manipulate means to influence the behavior or emotions of others, often at their expense, for one's own purposes. The stress of hospitalization may cause a patient to resort to manipulation in an effort to meet needs that are absent in a hospital setting. Patients who demonstrate manipulative behaviors are typically trying to gain power over the healthcare professional to get what they need/want. This behavior can evoke a negative response towards the patient from healthcare professionals and other clinicians.

FACTORS THAT MAY INCREASE THE RISK OF WORKPLACE VIOLENCE

Workplace violence ranges from offensive or threatening language to homicide. Incidents of violence are episodes or outbursts that involve hitting, choking, or assaulting another person; damaging property; throwing cups; smashing glassware, and so forth. One of the difficulties with providing a safe environment is that sickness and potential life-threatening factors cause stress in patients, their family members, and personnel in healthcare workplaces. Such stress can aggravate factors that lead to violence, which is reportedly on the increase (American Nurses Association [ANA], 2017).

Research demonstrates that among healthcare personnel, nurses are the most likely victims of workplace violence (OSHA, 2017). According to one report (Dwyer, 2017), 21% of nurses have experienced some form of violence, verbal assault, physical assault, or rape. The risk factors for violence vary with each healthcare facility, depending on location, size, and type of care. It is a problem that the American Nurses

Association has considered high priority (ANA, n.d.) and the ANA has been instrumental in sponsoring appropriate legislation to address it. Common risk factors for workplace violence in healthcare settings include poor or inadequate security measures, poorly lit public areas of the facility, and long waiting times in areas that are overcrowded or otherwise uncomfortable. Healthcare facilities are also places where drugs and money are viewed as easily available. Patients, their visitors, and healthcare staff are all at risk for involvement with violence for many reasons. Staff may lack training in recognition and management of violent behavior. Patients may feel extreme anxiety because of their medical condition and react in violent ways. Distraught family members and other visitors may think they are not getting the information they want or getting it quickly enough. Factors that may influence the risk for violence in healthcare settings are listed in Table 1.

Table 1: Factors That May Increase the Risk of Violence in Healthcare Settings

Patients and Visitors	Staff	Environment
Patients who are acutely agitated, violent, or volatile.	Lack of training in recognition, early intervention, and management of escalating, hostile, and assaultive behavior or patients who are potentially volatile.	Poor or inadequate security measures.
Patients with a history of violence or certain psychotic diagnoses.	Low staffing levels during times of specific increased activity, such as mealtimes, visiting hours, and shift changes.	Poorly lit corridors, rooms, parking lots, and other areas.
Patients who are on criminal holds by police and the criminal justice system.	Solo work, particularly in remote locations.	Highly accessible worksites with little or no privacy.
Patients with a history of trauma.	Interventions demanding close physical contact, such as examinations, treatments, or transporting patients.	Unrestricted movement of the public in clinics and hospitals.
Patients who abuse drugs or alcohol, are under the influence of these substances, or are withdrawing from substances.	Shift work, including commuting to and from work at night.	Long waits in emergency or clinic areas that are overcrowded and uncomfortable.
Distraught family members.	Demanding workloads.	Availability of drugs or money at hospitals, clinics, and pharmacies, making them likely targets for robbery.
Presence of gang members.	The use of temporary and inexperienced staff; working alone.	Prevalence of handguns and other weapons; home visiting, with its associated isolation.

Based on National Institute for Occupational Safety and Health. (2017). Occupational violence. Centers for Disease Control and Prevention. https://www.cdc.gov/niosh/topics/violence/training_nurses.html

Occupational Safety and Health Administration. (2017). Workplace violence. U.S. Department of Labor. https://www.osha.gov/SLTC/workplaceviolence

Townsend, M. C., & Morgan, K. (2017). Essentials of psychiatric mental health nursing: Concepts of care in evidence-based practice (7th ed.). F. A. Davis.

Workplace violence is destructive and has a profoundly negative impact on healthcare professionals. Nurses may experience physical injuries, psychological trauma, anxiety, or even death. Feelings such as anger, depression, fear, self-blame, and powerlessness might take over the healthcare professional's life. This can affect the institution by causing loss of job satisfaction, low worker morale, increased job stress, and increased staff turnover rate (Mento et al., 2020; OSHA, 2017).

Members of the healthcare professional staff need guidelines for dealing with workplace aggression, just as they do for a fire or dangerous situations. These guidelines should be based on a team approach with security staff because both groups have their own perspectives and skills to offer. In particular, healthcare professionals who work in long-term care facilities should have training in the management of patients who are potentially aggressive; both the frequency of incidents and the delicate nature of some patients' conditions increase the likelihood of violent incidents. The areas of a hospital where violence is most likely to occur are the emergency department, psychiatric services, and geriatric units (ANA, 2021). Ideally, all healthcare professionals should receive education on how to handle violence in their workplace.

INCIDENCE OF WORKPLACE VIOLENCE IN HEALTHCARE SETTINGS

Hospital workers are at high risk for experiencing violence in the workplace (National Institute for Occupational Safety and Health [NIOSH], 2017). Data collected between 2002 and 2013 revealed the incidence of nonfatal assaults on hospital workers was 8.3 assaults per 10,000 workers. This rate was much higher than the rate of nonfatal assaults in private sector industries, which was two per 10,000 workers. Healthcare workers are four times more likely to experience workplace violence than individuals in other professions. It continues to be a critical issue for all hospital workers. Individual states have enacted legislation to help curb this problem. Through these efforts, emergency departments in particular have added secure entry systems and, as much as possible under current budget restrictions, additional security personnel.

PREVENTION OF WORKPLACE VIOLENCE IN THE HEALTHCARE SETTING

Nurses in all healthcare settings should expect training in dealing with patient aggression. Being prepared for situations that may escalate allows healthcare professionals and other staff to defuse potentially violent situations before injuries occur. Areas where patients are most likely to become violent require higher staff-to-patient ratios to decrease incidents of violence. Suggested prevention strategies include maintaining a means of escape from the threat until help arrives, consistent enforcement of prevention policies, and fostering good working relationships with security personnel (Martinez, 2016; Edward, et al., 2016).

Patients are not the only individuals responsible for workplace violence. Family, other visitors, staff, and vendors are all potential aggressors. Nurses educated in de-escalation techniques may be able to help any of these individuals calm down rather than create a violent episode. Everyone benefits when an emotionally charged situation does not end in violence of any sort.

Evidence-based practice! Although most healthcare professionals work in places that have some sort of building that contains staff, patients, their families, and the supplies needed to administer care, home health healthcare professionals are out in the community. This requires some additional considerations when it comes to working safely. For one thing, home healthcare professionals are usually on their own – there is just one of them! Although history has shown that the public has a soft heart for healthcare professionals, it is imprudent to count on that alone. Nurses going out into the community and rural countryside must be cognizant of the norms for the area. They need to follow the policies and procedures of their workplace. Keeping safe practices in mind, such as making sure all car maintenance is up to date, is important. Consulting other home care workers and reading articles about current safety issues (Marrelli & Rennell, 2020) that focus on the unique needs of in-home providers help prepare for safe and successful visits.

DIAGNOSTIC ASSESSMENT

The following are the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5) diagnoses and North American Nursing Diagnosis Association (NANDA) nursing diagnoses that might be applicable to patients with potentially aggressive behavior. Of course, circumstances may warrant additions to the list of diagnoses for any specific patient, but those listed here are likely for anyone experiencing potentially aggressive behavior and mental health issues.

DSM-5 psychiatric diagnoses

Patients considered more at risk for becoming aggressive are those who have had a previous violent outburst: The highest predictor of violence is a previous violent episode. Patients with the following DSM-5 mental disorders may exhibit aggression (American Psychiatric Association, 2013):

- Neurocognitive disorders
- Alcohol and other substance use disorders, intoxication, or withdrawal
- Bipolar disorder and/or mania
- Schizophrenia
- Borderline personality disorder

NANDA nursing diagnoses

The NANDA nursing diagnoses that are often considered with patients who are at risk for violence include the following (Herdman & Kamitsuru, 2018):

- Confusion (acute, chronic)
- Coping (ineffective, readiness for enhanced, defensive)
- Fear
- Hopelessness
- Memory, impaired
- Nonadherence
- Self-esteem (chronic low, risk for low)
- Self-mutilation or risk for self-mutilation
- Social interaction, impaired
- Suicide risk

PREVENTION AND EARLY DETECTION

Nurses need to be aware of how they deal with patient anger. For example, becoming angry in response to anger will not be therapeutic and will actually create a situation in which the healthcare professional is unable to defuse a patient's aggression. Such behavior will more likely intensify the patient's emotions. Overly controlling behavior may lead to a power struggle with the patient. Simply withdrawing from an angry patient will almost always be ineffective. If the patient's angry feelings are escalating, the patient is communicating loss of control and needs help regaining composure (Townsend & Morgan, 2017).

Nurses should not overlook personal feelings of anxiety during an interaction with a patient. If their intuition gives them a message that a patient may become dangerous or that the situation may be getting out of hand, healthcare professionals should do the following:

- Seek help early.
- Use healthcare professional skills to establish and maintain a trusting relationship with the patient.
- Conduct a thorough psychosocial and mental status assessment.
- Be a good monitor of a potential crisis.
- Pay attention to "gut" reactions.
- Inform the patient that violent or aggressive behavior is not acceptable.
- Use calming statements to lower the patient's anxiety and decrease the likelihood of aggression.
- Encourage the patient to talk things through rather than acting out.
- Ask very simple, short-answer questions and not broad questions in these situations.
- Anticipate potential problems; have a plan for obtaining help from security and/or other staff members, as well as an escape route out of the patient's room.
- Know each patient's history and current problems. Consider obtaining an order for medication to calm a patient who has a history of aggressive behavior (if this appears in the patient's history or if the patient's behavior suggests loss of control and emotional escalation).
- Be alert to patients whose primary or secondary diagnoses are associated with a high degree of potential for violent occurrences (e.g., patients experiencing delirium or dementia, and patients with certain substance use disorders).

Nurses should request a psychiatric consultation for any patient who demonstrates violent behavior. A thorough assessment is crucial in making a correct diagnosis so that appropriate treatment may be initiated (Townsend & Morgan, 2017).

EARLY WARNING SIGNS

Considering the source and target of the patient's anger, as well as the likelihood of escalation, is important. Patients who are potentially violent are often demanding, argumentative, hostile, and perhaps challenging and blatantly threatening in all their interactions. This behavior may be directed toward staff members, other patients, or the patients' family and friends, depending on the situation. Authority figures are often the recipients of verbal and other abuse, although anyone who is "in the way" may be the target of patients who cannot control themselves.

A history of previous violence is the highest predictor of future violence. Patients who are at risk for violence often have a history of recent acts of aggression or violence and might exhibit the following behaviors (NIOSH, 2017):

- Becoming extremely loud, shouting, and making menacing verbal or physical threats.
- Becoming physically tense and appearing rigid and tight.
- Clenching their teeth and hands or wringing their hands.
- Becoming quite agitated, anxious, and restless; pacing around if mobile; seeming quite jittery.
- Exhibiting a labile mood but mostly anger.

PRELIMINARY ACTIONS

The healthcare professional staff should carefully manage patients who are agitated and seem to be at risk for violence. The following steps are important for healthcare professionals to remember in these situations (NIOSH, 2017; OSHA, 2017):

- Maintain a demeanor that helps defuse anger. Present a calm, caring attitude.
- Give patients who exhibit irritability choices and options, but make sure they are valid, true choices and options.
- Do not be demanding and argumentative; perhaps some rules or procedures can be waived temporarily. Patients who are angry and potentially violent generally feel helpless and powerless. They need help with their self-control.
- To avoid power struggles with these patients, do not confront them. This approach will help de-escalate the patients' behavior and the situation.
- Open and consistent communication should be ongoing among staff members and between the patient and the staff. Talk to the patient. Try to find out what is precipitating this crisis.
- Do not match the threats. Do not give orders. Acknowledge the person's feelings (e.g., "I know you are frustrated."). Ask the patient what they would like done (e.g., "How can the staff help?" "How can I help?").
- Decrease the stimuli for the patient. The loud and unfamiliar noises of the hospital may be particularly stressful, and bright lights may be bothersome.
- Avoid any behavior that may be interpreted as aggressive (e.g., moving rapidly, getting too close, touching, or speaking loudly). Physical touch can be a trigger. Patients may misinterpret the contact and feel threatened with bodily harm, and they may feel the need to defend themselves. Delay procedures that may escalate a patient's potentially violent behavior.
- Before the situation gets out of control, check the environment. Look for potentially dangerous objects and remove them if possible. Items such as glasses, scissors, food utensils, and other breakable or sharp objects can be used as weapons.
- Avoid being alone and vulnerable with a patient who is potentially violent or being trapped in a room away from the exit; stay between the patient and the door. Team up with another member of the staff when encountering such a patient; there can be safety in numbers.
- Alert other members of the healthcare professional staff of a potential problem. Do not call on new and inexperienced staff members. Additional personnel should be available to help with a crisis.

WHEN VIOLENCE ERUPTS

If the risk for violence escalates and a patient is behaving in a threatening manner, the healthcare professional staff must act quickly. This may mean administering medication against the patient's will. In such situations, following the textbook protocols may not be possible. The best rule of thumb is to follow hospital policy and state laws, protect the patient, and provide for the safety of all present. Careful and timely evaluation of the situation means containing any violence using the least restrictive means possible. Rigid adherence to precise procedure may not result in the desired outcome.

Healthcare Professional Consideration:
All healthcare professionals are taught how to give an intramuscular injection – carefully measuring the amount, "mapping" out the site, wiping the area clean, inserting the needle, aspirating, and then proceeding to inject the liquid. Admittedly, some of these steps have been brought into question, but when dealing with a patient who is agitated or possibly combative, the focus needs to be on the outcome, which is that the patient safely receives the calming agent. How does this translate to an actual patient setting? As a patient is crawling down the hallway, trying to get away from the four healthcare professional assistants who are holding him down, the healthcare professional needs to intervene quickly. In this situation, the healthcare professional should try to calm the patient and create a safe environment as soon as possible. The use of restraints is desirable before medication to control difficult behavior is administered.
On some occasions, restraint provided by staff may be all that is initially available. Once the staff has the patient's movements under control, the healthcare professional must act swiftly and decisively in administering the medication, even if this means giving a non-textbook injection. Those holding the patient can only do so for a certain period. Any such interventions should be in keeping with state laws and institution policy.

Nurses should always seek assistance in an emergency. They should get help from the security staff, other available healthcare professionals, or any other hospital personnel. A patient who has a weapon should be disarmed by persons who are trained to do so. If the patient cannot be disarmed easily, the safety of healthcare personnel and that of others in the area must be considered. Shields and barriers may protect against knives but not against a patient with a loaded gun. Other patients and visitors should be moved to safe and secure areas, and local police should be engaged in such a situation.

If the patient is unarmed, antianxiety or antipsychotic medication, physical restraints, or possibly both may be needed. This is often the decision that needs to be made by appropriate medical staff, quickly and with assurance, based on existing protocols and appropriate training. Erring on the side of caution is the best choice because the safety of all in the area is a priority. At the same time, the lowest level of effective restraint is desirable. Knowledge of the hospital's policies, state laws and regulations, the patient, and appropriate and available interventions is necessary for successful resolution of a violent episode.

RESTRAINTS

Each healthcare institution has, or should have, some guidelines for the use of chemical or physical restraints in potentially violent situations, and all healthcare professionals should be aware of the procedures used in their institution.

Chemical restraints

The medication protocol generally consists of giving a patient who cannot be "talked down" an initial, low dose of a high-potency antipsychotic (such as haloperidol) or a short-acting antianxiety medication (such as a benzodiazepine). Oral medications may be offered first, but if escalation is rapid, an intramuscular medication may be required. The patient is observed at 15-min intervals or possibly on a continuous basis. In some instances, medication may be given as often as every half hour until the violent episode is in check or the maximum dose is reached.

The healthcare professional responsibilities involved in handling a violent episode by medicating a patient with a potent pharmacologic agent include the following:

- Checking for or obtaining a healthcare practitioner's order to administer medication.
- Preparing the medication: capsules, tablets, or liquid; intramuscular injection, intravenous drip, or butterfly infusion.
- Assessing the patient's vital signs before giving the drugs if this can be done safely.
- Informing the patient of the procedure that will follow and providing reassurance and support if needed.
- After the medication has been administered, observing the patient, assessing for a decrease in signs and symptoms of aggression, and noting any untoward side effects of medication given.
- Periodically checking the patient's vital signs.
- Documenting the incident and the medications given by recording the information in the patient's medical record or as the institution directs.

Mechanical restraints

As with protocols for using medications, each healthcare institution should have a procedure to follow for mechanically restraining a patient. Without an order for an involuntary commitment, however, the patient cannot be held against their will (Tamura et al., 2015).

When a patient in a general hospital setting is at high risk for harm, the number of staff members needed to restrain the patient depends on the patient's size, strength, and potential for violence (Francis & Young, 2017). The general recommendation is that one staff member needs to be available to hold each extremity, and an additional staff member must be available to apply the restraints; if six staff members are available, one person can support the patient's head.

The patient is held by the arms and legs and walked, carried, or placed in as comfortable a position as possible (usually in a hospital bed with side rails up) and put in wrist and ankle restraints. These restraints may be cotton, gauze, cloth, or leather, depending on the patient's size and strength.

Ideally, one person (one of the registered healthcare professionals) should be in charge of a group of five or six staff members. If no one is in charge, the possibility of miscommunication can produce a disjointed effort. Consequently, the patient may escape and be harmed or do harm. The confusion that ensues when no one is in charge invariably adds to the patient's sense of being out of control and thus escalates the situation. The decision as to which staff member will be in charge should be made before any action is taken. A "show of force" of five or six staff members may be enough to defuse the situation.

The best approach toward the patient is a uniform one. All staff members should move or walk toward the patient together. Sometimes, this simple show of force subdues a patient. Before the approach is undertaken, to avoid confusion, the team leader should assign which staff member will hold which extremity. Staff members should try to be calm themselves. They should not speak loudly; instead they should be firm and speak slowly, clearly, and precisely. A soft voice may have a quieting effect on the patient.

The healthcare professional responsibilities involved in handling a violent episode by mechanically restraining a patient include the following:

- Staff should monitor the patient frequently, according to the facility's protocol.
- At least every 2 hr, the restraints should be untied and the patient's position should be changed (Francis & Young, 2017). Although the patient may not need to be restrained this long.
- Staff should not negotiate with the patient.
- Staff should not confuse the patient with options.
- Staff should remember that this patient is out of control.
- Staff can say something like the following: "We feel you are not in good control of yourself right now. We will help you calm down."

The room should be checked for potentially dangerous objects. Nurses should remove any watches, eyeglasses, jewelry, shoes, belts, and other items that could be a hazard. No place is absolutely free of danger. Patients have broken light bulbs and cut themselves with the shards or used pajama waist cords to hang themselves. Nurses should be cautious and aware. Nurses should look around the area from the patient's eye level so they can see what the patient sees.

The safety of the patient and the staff should be considered at all times. The goal is to demonstrate no tolerance for the violence and to present the intervention as not punitive but an attempt to help the patient regain some self-control over violent behavior. Patients should be shown respect and allowed to maintain their dignity. The staff should know the patient's name and use it.

Nurses should use calming statements or phrases and always explain step-by-step to the patient what is happening. They should be firm and provide information on why the staff is acting the way they are. For example, if giving an injection, the healthcare professional should say tell the patient that the injection is intended to relax and calm the patient. While putting on restraints, the healthcare professional should acknowledge that they may not be comfortable but that they will be removed as soon as possible. Providing these brief explanations will take away the unknown and, ideally, help the patient accept the interventions a little more calmly.

HEALTHCARE PROFESSIONAL INTERVENTIONS FOR PATIENTS WITH POTENTIALLY AGGRESSIVE BEHAVIORS

The role of the healthcare professional in the management of a patient's aggressive behaviors will be found within the protocol, policy, or procedure manual of each institution, as well as in the scope of practice or mental health act of the state. Nurses need to remain nonconfrontational. A calm, quiet approach that acknowledges the patient's anxiety and probable dislike of the situation will provide the best possibility of de-escalating the patient's aggression. By acknowledging the patient's feelings and providing the patient with an opportunity to talk, the healthcare professional establishes rapport and offers an opening for the patient to vent verbally rather than resorting to violence. Becoming aware of the potential of a violent episode before the situation escalates is a skill healthcare professionals should master. When a situation has arisen that requires intervention, healthcare professionals must carefully document all that happened, including any precipitating factors, attempted interventions, and the length of time it took to resolve the situation. Within this framework, the healthcare professional interventions in Table 2 may apply.

Table 2. Independent Healthcare professional Interventions and Their Rationale for Patients Who Exhibit Aggressive Behaviors	
Independent Healthcare professional Interventions	Rationale
Use good interpersonal skills. Be nonconfrontational.	Establishing rapport can help decrease the likelihood of aggression.
Assess for potentially violent occurrences.	Maintaining alertness to possibilities of violence allows the healthcare professional to be prepared.
Acknowledge the patient's feelings (e.g., "You seem angry."). Listen actively.	Providing an opening for verbal discussion can decrease possible violent episodes.
Anticipate a potential problem.	It is important to stay aware of environmental cues for escalating violence.
If a patient's anger is escalating, communicate verbally with then in a soft but firm voice.	Attempt to foster a therapeutic relationship by conveying empathy, acknowledging the patient's feelings.
Encourage patients to express anger verbally rather than by "acting out" their feelings.	Dealing with anger in this way will create a safe environment and help the patient learn more effective coping skills.
Be respectful of a patient's personal space.	Allowing a patient plenty of room sometimes keeps anger at a lower level.
Teach stress reduction techniques (e.g., deep breathing).	Providing alternative outlets for anger is good patient education.
Continuously observe patients who are potentially dangerous to themselves or to others.	Evaluation is part of the healthcare professional process.
Assess the patient's coping skills and ability.	Crisis intervention techniques may work to prevent violent eruption.
Help the patient maintain control by offering choices, talking, or walking.	Physical activity can sometimes defuse angry outbursts.
Initiate or collaborate on a plan that includes a team approach to restraining a patient.	Prepare ahead of time for potential violence.
Alert others of the potential problem. Do not approach an aggressive patient alone.	Use of a team to demonstrate a show of force is often all that is needed to defuse a potentially violent situation.
Monitor the situation for the safety of others and the staff.	Ask those who can to leave the area if violence is erupting.
Based on Halter, M. J. (2018). Varcarolis' foundations of psychiatric mental health nursing: A clinical approach (8th ed.). Elsevier. Townsend, M. C., & Morgan, K. (2017). Essentials of psychiatric mental health nursing: Concepts of care in evidence-based practice 7th ed.). F. A. Davis.	

HOLISTIC CONSIDERATIONS

Healthcare is one of the professions where the incidence of workplace violence is particularly concerning to governing agencies such as the ANA (2017), OSHA (2017), and, within the Centers for Disease Control and Prevention, NIOSH (2017).

Nurses need to educate themselves on how to identify institutional policies that might put them at higher risk for workplace violence. They should learn how to recognize warning signs and behaviors and how to develop a workplace violence-prevention program. The Centers for Disease Control and Prevention offers a free online course, Workplace Violence Prevention for Nurses (https://www.cdc.gov/niosh/topics/violence/training_nurses.html). Developing an awareness of changes in the environment involves paying attention, intentionally. As both witnesses to and recipients of workplace violence, healthcare professionals can campaign this cause at their facility to increase the care and safety of all staff. The healthcare profession does not tolerate violence of any kind, from any source (ANA, 2021).

The best way to deal with any patient's violent behaviors is to defuse the agitation during the early stages of escalation. Nurses need to watch for early warning signs and try to avoid dangerous outbursts. When this fails, their own safety and that of other patients and staff members, as well as that of the patient, must be considered.

Case study 1

Martha, who is a newly graduated nurse, is working on a detox unit. Susan is her lead nurse. Susan has asked Martha to go quickly and administer an injection to a newly committed patient who is trying to get out of the hospital. Martha has drawn up the medication and goes to where she finds the patient on the floor, physically restrained by four coworkers. The patient is constantly trying to get away by moving along the floor in a crawling manner, keeping his hips in motion. The staff is getting tired. Several minutes go by while Martha is attempting to give the injection. Susan comes to the group and realizes the difficulty Martha is having.

Self-Assessment Quiz Question #1

What should Susan do immediately?

a. Quietly tell Martha to "go ahead and give him the injection."
b. Announce loudly to all, "Carefully lift him up and carry him to his room."
c. Ask Martha, "Why can't you just give this medication as you were asked?"
d. Take the syringe from Martha, and give the injection herself.

Self-Assessment Quiz Question #2

WWhat action should Susan take later?

a. Tell Martha that she is not working out on this unit and will need to transfer to another one.
b. Ask Martha to submit her resignation as she does not seem to be doing a good job.
c. Take some time with Martha to explore her feelings about the situation and why she failed to give the injection.
d. Meet with the staff, who were holding the patient down, and explain to them that Martha is just inexperienced.

Case study 2

Erik Nilsson is admitted to a large general hospital for a surgical procedure scheduled for early the next morning. He is 68 years old, and English is his second language. Although he can understand some words and phrases, his ability to speak in English is extremely limited. Erik is accompanied to the hospital by his daughter, Astrid, who can translate for Erik during the admission process. She tells Jackie, the healthcare professional conducting the interview, that her father lives with her and her family. Astrid says that she does not think he is especially worried about his surgery but did add that lately she has noticed that her father exhibits mood swings.

Self-Assessment Quiz Question #3

What would Jackie's best response be to this information?

a. Make a note to ask Erik about his "mood swings."
b. Ask Astrid to describe what she means by "mood swings."
c. Tell Erik that Astrid said he had "mood swings."
d. Inform the doctor that Astrid reported Erik having "mood swings."

Case study 3

That evening, Erik speaks in an agitated manner, in Swedish, to another patient. Jackie, his evening healthcare professional, goes to Erik's bedside to calm him down and see what is wrong. He is gesturing and muttering to himself, quite loudly at times. Jackie notifies the physician on call. When the physician examines Erik, he still appears agitated but somewhat calmer. The attending practitioner orders a sedative and informs Jackie that he will check with her again in an hour. Erik falls asleep in a short while. The rest of the evening shift progresses unremarkably.

Self-Assessment Quiz Question #4

Based on the information presented, what healthcare professional actions should Jackie take at this point?

a. Arrange for security to send someone to stay right outside Erik's room.
b. Locate some restraints and place them in Erik's room.
c. Check on Erik at frequent intervals throughout the night.
d. Treat the patient the same as any other patient.

Case study 4

Jackie wakes Erik at about 6:00 a.m. and administers his preoperative medications. Erik is taken to surgery at 7:00 a.m. The surgery goes well, with no complications. Erik has an uneventful recovery and is returned to his unit at 2:00 p.m. His daughter and son-in-law are waiting to see him.

Although he appears somewhat sleepy, Erik is mumbling to himself and gesturing with his hands. Neither his daughter nor his son-in-law can understand what he is saying. They try to visit with him briefly but finally leave, telling him to get some rest and they will return later.

Erik dozes off, but when he awakes, the unusual behaviors seem to increase. Erik's voice becomes louder. He then begins to appear very tense, grimacing and clenching his fists. When Jackie approaches him, he seems angry with her, and she is confused as to why. The nurse reports her concerns to her unit manager: "I'm not sure what's going on with Erik, but I feel somewhat frightened of him."

Self-Assessment Quiz Question #5

What is the best action for the nurse manager to take at this time?

a. Instruct Jackie to pass information on to the next shift regarding Erik's behavior.
b. Remind Jackie that she is expected to act independently, not rely on her supervisor.
c. Go with Jackie to visit Erik and see if together they can figure out what is going on.
d. Make sure that Jackie did nothing to anger Erik while caring for him.

Case study 5

Jackie and the nurse manager decide that they both will go to Erik's room together to conduct a postoperative assessment. As they approach Erik's bedside, he begins shouting, trying to pull out his intravenous line and catheter, and attempting to leap out of the bed. He picks up a water bottle that was on his over-the-bed tray and throws it at the healthcare professional unit manager. It hits her on the arm, stunning her but not hurting her.

Self-Assessment Quiz Question #6

Of the following, which is the best choice for the nurse manager to do first?

a. Initiate a call for help from the rest of the staff.
b. Ask for an interpreter to be sent to the unit.
c. Have someone call Erik's surgeon.
d. Call Erik's family.

Self-Assessment Quiz Question #7

Which of the following would be the best response to Erik following his behavior?

a. "You know this kind of behavior cannot be tolerated here."
b. "No one here is deserving of your violent actions."
c. "You seem to have lost control. We are going to help you calm down."
d. "Now why would you do something like that?"

Case study 6

Staff arrive on the scene ready to assist in restraining Erik. In the meantime, a Swedish-language interpreter has come to the unit. After the interpreter is introduced, Erik seems to calm down considerably.

Self-Assessment Quiz Question #8

The nurse manager asks the interpreter to convey to Erik which of the following?

a. "You seem to be upset. Tell us what's bothering you."
b. "Why are you behaving so poorly?"
c. "What are you thinking? Throwing things is not allowed here."
d. "Were you really trying to hurt someone?"

Case study 7

The on-call healthcare practitioner responsible for Erik's care arrives and, after reviewing the situation, orders medication to calm Erik. The interpreter tells Erik, in his own language, about the medication and why he is receiving it. Erik responds favorably to this and accepts the medication. A staff member is assigned to remain at Erik's bedside until he falls asleep. Soft restraints are made available at the bedside in case they are needed.

After this incident is under control, the unit manager, Jackie, and the other staff involved go to a conference room to review the episode. A plan is made to confer with the family about Erik's reported "mood swings," request a psychiatric evaluation, use Swedish-speaking personnel when available, and maintain close observation of the patient. Jackie asks the team why Erik behaved in this way.

Self-Assessment Quiz Question #9

What response is most likely accurate and helpful to Jackie?

a. "We really can't say."
b. "It's hard to know. What do you think?"
c. "Some people are just that way."
d. "It is not possible to say accurately why Erik is behaving in this manner."

Case study 8

The nurse manager may also tell Jackie, "Often patients will react aggressively, and the staff has no sure way of knowing why this happens. It could be that the 'mood swings' mentioned by the daughter are connected to Erik's current behavior. It might be the unknowns of the hospital process or of what the findings from his surgery will indicate. The fact that Erik does not speak English well may increase what might be normal anxiety to a frightening level."

Self-Assessment Quiz Question #10

What guided everyone on the staff and facilitated the positive outcome?

a. No one person tried to tell others what to do.
b. Everyone on staff liked and felt sorry for Erik.
c. Jackie had had a lot of experience dealing with aggressive patients.
d. The staff all kept in mind that the most important thing is to provide a safe environment.

NONCOMPLIANCE

There is some debate among healthcare professionals regarding the concept of noncompliance. Healthcare professionals have argued that a diagnosis of noncompliance labels the patient negatively, arguing that it places the emphasis on the patient's behavior instead of on a mutual process with the healthcare professional and other healthcare providers. At the heart of this argument is the issue of the right of the patient to choose a treatment course that is different from the recommendations of the healthcare team.

Treatment adherence is usually associated with optimal health. The most obvious result of nonadherence is that the disorder may not be relieved or cured. For example, when patients with glaucoma fail to take their prescribed medications, optic nerve damage and blindness may be the result. For patients with an erratic heart rhythm, failure to comply with suggested treatment can lead to cardiac arrest. Stroke may be the outcome when people with high blood pressure ignore prescribed treatment. Failing to take prescribed doses of an antibiotic can cause an infection to flare up and may contribute to the emergence of drug-resistant bacteria. These failures to follow healthcare suggestions are not only frustrating but are also costly because of the undesired patient outcomes.

Healthcare Professional Consideration: Sometimes, patients who need to take medication regularly are the ones who are the most worried about addiction. In some cases, the family is also worried that their loved one will become addicted. In many cases, prescribed drugs are reducing symptoms, not curing the disease. Many psychiatric medications reduce symptoms, but, from the patient's perspective, the side effects seem to be worse than the symptoms. When patients begin to feel better, they stop taking their medication. After a period of time without the medication, the symptoms return, and the patients must start the cycle all over again. Education of patients and their families is critical in helping them understand why they are taking their medications, the expected side effects, when there is reason to be concerned about developing tolerance or dependence, and that continuing the medication is what will make them continue to feel better. A similar situation exists in the frequent nonadherence with antibiotic treatments. Although patients are told to take the entire prescription, they often stop once they feel better. Again, education is the key to patients' adherence to treatment. Verbal instruction followed by giving the patient a written pamphlet is often necessary to achieve adherence.

INCIDENCE

Although it is almost impossible to correctly determine statistics related to nonadherence, estimates have been made. It is estimated that 125,000 deaths and up to 10% of hospitalizations could be prevented, as well as between $100 and $289 billion saved, if patients took their medications as prescribed (Boylan, 2017; Cutler et al., 2018). That represents between 3% and 10% of total U.S. healthcare costs.

One meta-analysis (Cutler et al., 2018) examined the economic impact of numerous different disease processes and found the average cost of nonadherence per person was up to $44,000 a year.

Medication nonadherence leads to poor health outcomes, increased health costs, and increased health risks for individuals and populations. Misuse and overuse of antibiotics have contributed to the emergence of antibiotic-resistant strains of bacteria (U.S. Food and Drug Administration, 2020). Population health is affected by medication nonadherence; an example of this is persons with tuberculosis who did not adhere to treatment protocols, creating the antibiotic-resistant tuberculosis strain now evident (Centers for Disease Control and Prevention, 2017).

Patients fail to take medications as prescribed approximately 50% of the time, which often leads to hospitalization and emergency room visits (Brown & Sinsky, 2017). One of the recommended means of improving adherence is to involve the patient in the development of the treatment plan (Brown & Sinsky, 2017).

Patients with mental health disorders are frequently nonadherent with medications. Some psychiatric medications do have intrusive side effects that may seem to the patient more difficult to bear than the illness itself. Patients who are nonadherent with medications may also be nonadherent with interventions such as rehabilitation, relaxation, counseling therapy, quitting smoking, or losing weight.

HEALTH BELIEF MODEL

Many attempts have been made to create a conceptual model of adherence that will enable healthcare providers to predict and understand patients' behavior. The Health Belief Model offers some understanding of the phenomenon of adherence. The model proposes reasons for people's varied and unique responses to illness (Jones et al., 2015). The significance of this model is that it suggests that patients' choices depend on their beliefs, not necessarily on the medical evaluation of the situation.

The Health Belief Model proposes that changes in beliefs about the severity of and susceptibility to a health outcome and its consequences are associated with the motivation to take action. Once an individual feels threatened, a decision is made from among alternative actions based on a cost-benefit analysis. This model also emphasizes the concept of self-efficacy. Patients must feel capable of mastering their environment and behavior to risk trying to make behavioral changes. If they do not feel capable, assistance may be offered by healthcare providers through skill practice and positive reinforcement so that the patients come to see that they are capable of change.

The model postulates that people choose healthcare actions when they are faced with a threat to their health. The actions they choose depend on their perceptions of the situation. They decide how much of their personal goals they might be risking and compare it with how severe the threat is to their health. Then a further determination is made as to whether the costs to their lifestyle are worth the potential benefits. Unfortunately, a lot of this "balance sheet" is based on personal viewpoints and not on medical facts. Even when patients decide on a course of action that is adherent, they struggle with long-term habits that must be overcome. Lifelong habits are difficult to change, and the ease of continuing a previous pattern of behavior works against making healthy lifestyle changes (Jones et al., 2015). For many patients, nonadherence may be the perception that the illness is less of a problem than the treatment. Some changes are much more difficult than others as well.

LEGAL AND ETHICAL ISSUES

Healthcare professionals face increasingly complex situations in which the patient's wishes may deviate from the treatment recommendations. Some ethical guidelines can help healthcare professionals choose a response to a patient who is nonadherent. In addition, to practice within the law, healthcare professionals must be aware of legal guidelines. This area of healthcare is changing quickly. Healthcare professionals need to be clear about their obligations to patients and be knowledgeable about patients' rights.

Rights of the patient

Inviolability is the fundamental right of every individual to be left alone. The US Constitution and Bill of Rights are based on this principle. The individual has authority over what happens to their body. In practice, however, the situation is not always so clear. In some instances, individual rights may interfere with the rights of others. In addition, fluctuations in public sentiment may affect the decisions made by practitioners and institutions.

Ethicists differ in their perceptions about the dilemmas that healthcare professionals face. The concept of personal freedom becomes unclear when the perspective is one of social responsibility. Some ethicists believe that people can have both individual autonomy and responsibilities to one another.

The issue of mandatory testing for communicable diseases illustrates the dilemma of conflicting principles. Inviolability would guarantee the individual the right to refuse such testing. The principle of social responsibility would support mandatory testing because the individual has the obligation to participate to protect others.

Legal concerns

One legal issue that affects Healthcare Professional when discussing patient adherence to treatment is the issue of competence. A patient is considered competent if they are able to participate in making decisions, which means the patient has the ability to comprehend information, understand choices, and communicate their decision verbally or nonverbally to the healthcare team. For example, patients must be able to understand the nature of their illness and the available treatment alternatives. Equally important is an understanding of the consequences of any decision the patient might make about these alternatives.

Patients are presumed to be competent. This assumption means that the burden of proving incompetence belongs to parties other than the patient. Unless otherwise indicated, patients are assumed to be making competent choices about their healthcare.

At times, however, patients may be caught in a frustrating contradiction between the issues of adherence and competence. A patient may refuse a treatment recommendation. Healthcare professionals may label the patient incompetent because of the refusal. In this situation, a cognitively capable patient has made an informed decision. However, because the patient has made the decision, which opposes that of the treatment team, healthcare professionals view the patient as incompetent.

Special cases

Rights of Women Who Are Pregnant

Pregnancy offers a unique slant to the issue of patients' rights. For some people, the fact that the fetus is affected by the mother's behavior alters the mother's right to personal freedom. The legal system has increasingly overridden the right of the pregnant mother to disregard medical advice. The legal basis for these decisions is weak. However, societal support for protecting the unborn fetus can result in a disregard for the rights of the pregnant woman. The ongoing debate over the rights of the unborn fetus versus the rights of the mother evokes intense emotions on both sides of the issue.

Withholding Nutrition

There is little consensus on the ethics of withholding or withdrawing nutrition from patients. When a patient chooses to refuse nutrition, it is often difficult for healthcare providers to honor this wish. Healthcare professionals may be concerned about participating in behavior that will lead to hunger or thirst in the patient. The American Nurses Association (2015) maintains the position that the decision to withhold artificial nutrition and hydration should be made by the patient or the patient's surrogate after consultation with the healthcare team.

In some ethical deliberations, a distinction is made between allowing a patient to die and killing a patient. The difference lies with the intent of the actions. Nutrition may be withheld on the premise that, if given, it will prolong life and thus prolong suffering. This is different from starving a patient with the intent to kill them. Others argue that the finality of the act of withholding nutrition makes the act untenable.

It is imperative that every healthcare professional be familiar with the legalities surrounding the patients' right to refuse treatment. They should find out if there are advance directives that have addressed this issue. In addition, careful thought concerning the healthcare professional's ethical position on these issues is necessary. The answers are not always clear in the increasingly complex environment of healthcare today. Although it may be difficult for healthcare professionals to act on patients' wishes that are contrary to their own beliefs, they are usually mandated to do so by the policies of the

institution where they work. Although they may be free to operate on their own principles and beliefs, they should be fully aware that by doing so their job might be in jeopardy in some situations.

The Patient Who Signs Out Against Medical Advice

Leaving the hospital against medical advice (aka AMA) may be an extreme example of nonadherence. It is rarely a spontaneous act. There are often warning signals or repeated conflictual interactions with staff members before the patient actually signs out of the hospital.

Healthcare professionals and physicians react strongly when a patient leaves against medical advice. Healthcare providers may attempt to cajole or coerce the patient into staying, since there are often concerns about the patient's safety and the providers' obligations to the patient. Healthcare professionals may also feel a personal failure when a patient's choice is to leave against medical advice.

Patients should be free to leave against medical advice as long as they are competent and not endangering their lives. It is not appropriate to medicate a patient who is nonpsychotic and threatening to leave against medical advice. Using drugs as chemical restraints in this manner is battery from a legal standpoint.

RISK FACTORS

Nonadherence has meaning in the patient's life. The healthcare professional must be able to carefully assess the patient's situation to understand this meaning. In this way, the healthcare professional can uncover and deal with obstacles to adherence. Patients' individual characteristics and living conditions will influence the likelihood of their being compliant or noncompliant. For example, if the patient's home has no running water, then maintaining cleanliness will be more problematic for them than it will be for someone living with modern plumbing. Knowledge of risk factors can help healthcare professionals be more aware of the possibility that patients may have difficulties following their treatment plans. This knowledge is most helpful when it is used to prevent possible problems with compliance.

Psychological and cognitive risk factors

The most important psychological risk factors include the following:

- Cognitive abilities
- Mental status
- Denial and anxiety
- Addictions
- Depression
- Past experiences

Psychological and cognitive factors influence adherence to treatment. To be able to comply, patients must understand the information presented to them. Teaching should be brief and focused. Complex information should be broken into smaller and more understandable parts whenever possible. It is helpful to simplify teaching material as much as possible. Use of written materials that reflect a fourth- or fifth-grade reading level is appropriate so that the patient's level of health literacy is not overestimated.

Patients with cognitive deficits may not be able to learn. Patients must have an adequate attention span to be capable of concentrating and learning new behaviors. If the patient has little focus or scope of attention, the healthcare professional should attempt to consult with a family member or other support person and determine who should receive healthcare information because the patient is not capable of understanding it.

Similarly, patients with changes in mental status may be unable to integrate new learning material effectively. Their judgment may be significantly impaired. A thorough mental status examination is needed if there is any indication that a patient's mental status is compromised.

Some patients may be in denial, a defense mechanism used to guard against uncomfortable feelings. They may be too frightened by their illness to be able to accept it. This can cause them to feel their treatment recommendations are unnecessary. They need time to adjust and an opportunity to discuss these difficult feelings.

Denial is a normal part of grieving and sometimes occurs in people when they find out they have a terminal illness. Illness and hospitalization involve losses for people regardless of the prognosis, and denial may be part of any patient's presentation. Sometimes giving patients time to adjust to their new status is sufficient and they will be ready to accept and, ideally, adhere to their new treatment needs.

Anxiety reduces the ability to process information or to make decisions. An anxious patient might exhibit a number of different emotions and behaviors, including anger, complaining, demanding, withdrawing, or even crying. When a patient's anxiety is reduced, it will help the patient in adhering to the treatment regimen. Many patients are fearful of the unknown. Education often allays these fears.

Dependence on medications and illegal substances affects adherence because these drugs may be the priority in the individual's life. If the treatment regimen interferes in any way with the behaviors surrounding the need to maintain the drug to avoid withdrawal, the patient will not be adherent until the substance use disorder is treated. The classic example of this is the patient with an alcohol use disorder who has cirrhosis. The recommended treatment is abstinence from alcohol, but few patients who misuse alcohol can accomplish this without professional intervention.

A person who suffers from a depressive disorder will not take in information or make decisions as well as one who is not depressed. Individuals who are depressed are more likely than others to be nonadherent to treatment plans. They commonly have low self-esteem and feelings of hopelessness that can interfere with their ability to follow a regimen to better their health. To a large degree, they lack the energy to comply. Although depression is the most common mental health problem in the United States and one of the easiest to treat, it is the least treated; thus, patients who are depressed are often overlooked. Patients with depression often have other physical inflammatory illnesses such as heart disease, diabetes, or chronic obstructive pulmonary disease.

Finally, patients enter the healthcare system with ideas and beliefs that affect the course of their current hospitalization. Previous experiences that were negative can affect a patient's expectations. If a patient enters the system expecting the worst, chances are good that healthcare recommendations will not be viewed in a positive light. Healthcare professionals can influence these patients to take a more positive outlook by building trust and meeting their expectations as much as possible. When healthcare professionals cannot meet these expectations, it can be helpful for them to explain why.

Age

The estimated rate of nonadherence for older adult patients is 50%. They are more at risk for nonadherence than other adult patients. Because of their unique needs, older adult patients present a challenge in adherence. Their hearing, vision, and cognitive functioning are likely to be impaired in some way. These impairments, as well as years of ingrained habits, make changes in behavior more difficult.

Most patients 60 years of age or older require vision correction of some sort. These impairments make self-administration of medications particularly difficult. Almost one third of all people aged 65 to 79 years have significant hearing impairment. In older adult patients, recall is best when material is given verbally. Information must be delivered slowly and audibly. Reinforcing verbal instruction with written materials is essential and teach back will assess understanding. Print materials with large-type fonts and pictures are most effective.

Depression is common in older adult patients. It often goes undetected and untreated. Depression lessens the ability of older adult patients to adapt to changes in lifestyle. Seemingly simple tasks such as picking

up a pill become difficult. Plans for self-management must take this loss of dexterity into account.

Older adults often find that their social support systems are shrinking. Friends and relatives may be ill, dying, or making changes in living arrangements. This resulting isolation can affect adherence.

The number of medications prescribed for older adult patients can be a problem. At least one fourth of older adult patients recently discharged from hospitals have six or more prescriptions that require self-administration. Medication costs must be considered, as well as the ability to obtain the medications if transportation and mobility are issues (Townsend & Morgan, 2017).

It is easy to see why the nonadherence rates for older adult patients are high. This population is also less likely to be assertive about their needs with healthcare providers. Older adult patients constitute a major part of general care patients today. Healthcare professionals need to be sensitive to the unique needs of this age group.

Social and economic risk factors

The social spheres that most affect a patient's health behaviors are:

1. Family and significant others
2. Relationships with healthcare providers
3. Cultural or ethnic groups
4. Religious community or beliefs
5. Economic status

Patients are more likely to adhere with their treatment plans if their family or significant others are supportive of it and encourage them to follow it. They are also more likely to be adherent if they have a positive relationship with their healthcare team, are included in the decision-making process, and are acknowledged for being adherent.

A patient's cultural or religious beliefs and practices may prohibit adherence with a treatment regimen. In some religions, use of certain types of medical interventions is regarded as a lack of faith in God, and those interventions are therefore prohibited. Some cultures have lay healers, and the patient may wish to combine the healer's cures with medical treatment. Many cultures view healing as a family affair; therefore, the family will always need to be present and involved in the patient's care. Healthcare professionals must try to understand and appreciate the importance of these practices to help patients be adherent.

A significant concern related to nonadherence is limited income. Patients may have hospitalization coverage but lack sufficient funds to follow through on recommendations after discharge. A patient who must choose between feeding their family and buying blood pressure medicine has no choice at all. This is particularly true for older adult patients who are frequently on fixed, limited incomes. Choices between food and medication are not easy ones, and healthcare professionals can help access as much assistance as is available to older adult patients. It is helpful to examine older adult patients' finances with them and plan realistic healthcare choices together.

Environmental risk factors

The healthcare setting can influence patient adherence. The most common factors are comfort issues and ease of access, including transportation. The needs of patients who are physically impaired must be considered carefully. For example, an older adult who has been directed to return to the clinic after a surgical admission may not keep this appointment. The patient may not have transportation, the parking may be remote and require walking a long distance between the parking lot and office, or the stairs may be too much to handle. If there is little to motivate patients' return, then when they are feeling well, environmental obstacles will result in nonadherence.

Determining risk factors early in treatment enables healthcare professionals to intervene effectively. Healthcare professionals are in the best position to use their skills to develop a care plan with the patient that maximizes adherence. In the same way, knowledge of risk factors affecting compliance can enhance discharge planning and make it more effective.

Situational factors are best dealt with through anticipatory planning. A conversation with the patient about the possibility of these events occurring and how to deal with them can ensure their adherence. A patient on a restricted diet, for example, is asked to consider eating at home until they are familiar with the diet. The patient is also given ideas about what to order in a restaurant that would be allowed on this diet. The patient may feel uncomfortable explaining their diet to friends. Role playing can be helpful in these situations.

Case study 9

Bill is a 32-year-old, single African American man diagnosed with bipolar disorder who stopped taking his medications 3 weeks ago. His family brought him into the emergency department because of his manic behavior.

Self-Assessment Quiz Question #11

The healthcare professional caring for this patient knows that:

a. Most drugs for psychiatric illnesses have few side effects.
b. The severity of side effects for antipsychotic drugs varies according to their gender.
c. A bipolar patient often stops taking their medication when they are manic.
d. Medications for bipolar disorder have few side effects.

Self-Assessment Quiz Question #12

To avoid medication noncompliance in the future, the healthcare professional should:

a. Limit disclosure of the severity of the illness to the patient and family.
b. Encourage the patient to purchase needed medications at their own expense.
c. Teach the family some of the symptoms (rapid speech, change in energy level) that would show medication nonadherence early.
d. Use scare tactics wherever necessary to obtain compliance.

DIAGNOSTIC ASSESSMENT

The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5) diagnoses and the NANDA nursing diagnoses that might be applicable to patients who are nonadherent are detailed in this section. Of course, circumstances for any specific patient who is nonadherent may warrant additions to the listings.

DSM-5 psychiatric diagnoses

Medication treatment nonadherence, as it is referred to in the DSM-5, can occur in patients with any diagnosis. However, especially for patients with psychiatric diagnoses, the effects of nonadherence can be unsafe. Patients with the following DSM-5 diagnoses may be particularly at risk for nonadherence (American Psychiatric Association, 2013):

- Neurocognitive disorders.
- Substance-related disorders.
- Bipolar disorder.
- Schizophrenia.
- Feeding and eating disorders.
- Personality disorders.

NANDA nursing diagnoses

The following are NANDA nursing diagnoses that are associated with patient nonadherence (Herdman & Kamitsuru, 2018):

- Anxiety (e.g., mild, moderate, severe).
- Coping (ineffective, defensive).
- Family processes (e.g., dysfunctional, interrupted).
- Self-care deficit (e.g., bathing, dressing, feeding).

THE HEALTHCARE PROFESSIONAL'S REACTION TO THE PATIENT WHO IS NONADHERENT

Healthcare professionals' willingness to examine their attitudes and feelings toward the patient is of primary importance in working with patients who are nonadherent. The identity of a healthcare professional is closely tied to the concepts of helping, caring, and service. When a patient appears to reject a healthcare professional's expertise in promoting wellness, the healthcare professional must deal with many intense and conflicting emotions.

Many healthcare professionals state that they would prefer to spend their time with motivated patients who want to get well rather than with patients who do not comply with their treatment plan. They express anger that the patients are "wasting" a bed, precious resources, or the healthcare professionals' time. It is important to understand that many patients who are nonadherent are not deliberately working against the treatment team.

Sometimes anger can lead to withdrawal of services. A healthcare professional may avoid going into the patient's room or omit teaching the patient because "the patient isn't going to do it anyway." The healthcare professional should deal with these feelings in another way because it is obviously not helpful to punish the patient with these behaviors. Discussing the patient's case with the healthcare team and getting suggestions for new approaches to handling the patient can be helpful. Discussions may need to focus on the degree to which care is patient-centered, so that patients feel they are active, respected partners in healthcare decisions. Patients will resist interventions if they feel that their needs are not being heard or respected. When they do resist and appear to be nonadherent, this may be a signal to the healthcare team that an internal assessment of the system's approaches to patient care should be conducted (see Box 1).

At times, healthcare professionals may feel unable to "allow" a patient to be nonadherent. This situation might occur when the healthcare professional has some commonality with the patient, such as being the same age as the patient or having a parent who died of the disease the patient has. Healthcare professionals who feel powerless in the face of a patient's nonadherence may push the patient to adhere while assuming decision-making responsibilities that belong to the patient.

Box 1. Cycle of Nonadherence Between Patients and Healthcare professionals

Depending on the reasons for nonadherence, the patient may be quite happy to be left alone or to be overly dependent on the healthcare professional. More likely, however, the patient will feel that their real healthcare needs are going undetected. This behavior may become a cycle.

Nonadherence Cycle

- Patient is nonadherent
- Healthcare professional feels angry, powerless, and so forth
- Healthcare professional withdraws or overreacts
- Patient's needs go unmet

Healthcare Professional Strategies to Stop This Cycle

- Becoming aware of feelings
- Performing a healthcare professional assessment
- Using care planning as a mutual process

INDEPENDENT HEALTHCARE PROFESSIONAL INTERVENTIONS

Healthcare professionals can be key players in enhancing adherence on the part of their patients. By establishing rapport and creating trust, they present themselves to their patients as informed and knowledgeable persons who can answer questions and offer ways to adhere to plans of care. Healthcare professionals can reassure patients that it is not always easy to change long-term behaviors and gently reinforce why some changes may be necessary. Providing their patients with education as to the reason for certain treatment regimens is something healthcare professionals are well equipped to do. Often patients are more likely to follow through on their treatment requirements when they fully understand the reason and importance of what they are doing.

Patients benefit from the help of family and friends; healthcare professionals can assist their patients in obtaining support from these individuals. If there is a particular part of the treatment that goes against the patient's belief system in some way, the healthcare professional can help explain this to the healthcare team and together they (including the patient) can try to come up with an alternative intervention. Healthcare professionals implement their role as a patient advocate when they assist in these situations.

In addition to being professionals with a job to do, healthcare professionals are also individuals with their own belief systems. When patients are nonadherent, healthcare professionals can take it personally and react poorly in the situation. It is helpful for healthcare professionals to examine their reactions and why the patient may be acting in this way. Table 3 provides some suggested healthcare professional interventions along with their rationale for working with patients who are nonadherent.

Table 3. Independent Healthcare professional Interventions for Patients Who Are Nonadherent and Their Rationale	
Independent Healthcare professional Interventions	Rationale
Develop awareness of feelings toward patients who are nonadherent with their treatment regimens.	If unaware of personal feelings toward patients who are nonadherent, there is the possibility to be unaware of feelings of anger and/or powerless toward patients. This may a withdrawal from the patients and thus their needs will go unmet.
Develop a trusting relationship with patients.	Trust is basic to a therapeutic relationship. The quality of the healthcare professional-patient relationship has been shown to be a powerful predictor of adherence.
Assess patients' mental status.	Several studies have shown that clinical depression is a risk factor for nonadherence (Brown & Sinsky, 2017).
Explain clearly why the treatment is necessary and what to expect (e.g., delayed benefits, general side effects). Ask the patients to identify benefits of treatment, and how likely they think it is that there will be consequences of the current illness or health problem (perceived susceptibility and perceived severity).	A complicated or demanding treatment plan is an ordeal for even the most motivated patients. Patients need to understand why the plan is necessary; otherwise, they have little incentive to follow through with it.
Include the patients in setting goals and planning care. Ask the patients to identify potential barriers to adherence (e.g., social, economic, or environmental factors).	The mutuality of expectations of patients and healthcare professionals makes it more likely that patients will be adherent with the treatment plan. Encourage patients to ask questions and express their concerns regarding their illness and the advantages and disadvantages of a treatment regimen. Addressing issues and strategizing with the patients as to how best to deal with these issues will help with adherence and help to reinforce the importance of the treatment plan.
Teaching should be aimed at the patients' learning level.	To be able to adhere, patients must understand the information presented to them: • Teaching should be brief and focused. • Complex information should be broken into smaller, more understandable parts whenever possible. • Teaching material should be simplified as much as possible. Aim for a reading level of fourth or fifth grade with few words with more than three syllables.
Encourage patients to report problems with their treatment regimen, such as any unwanted or unexpected side effects, before adjusting or stopping it.	Patients often have valid reasons for not following a treatment plan. The better the understanding of patients' concerns about their treatment regimen, the more likely its importance will be explained (Jones et al., 2015).
Encourage patients to request the support and help of family or friends.	If family members or other caregivers are not providing direct care to patients, and if patients are having difficulty following through on taking medications or other therapies, family members may be helpful in reminding patients to take their medications.
Communicate concerns about the patients' nonadherence with other members of the healthcare team. Revisit the facility's philosophy about patient-centered care.	The healthcare team may detect and help solve nonadherence problems, including health system problems as well as patient issues.

HOLISTIC CONSIDERATIONS

Patients do have the right to choose their own treatment and make their own decisions unless their choices will harm themselves or others. However, healthcare professionals and other clinicians may have a better knowledge base about treatment options. The healthcare professionals' role is to educate patients so that they can make an informed choice and not to assume patients do not know what is best for themselves. Walker (2017) outlined four basic philosophical orientations for clinician-patient relationships related to adherence.

Paternalism

The paternalism model is based on the expertise of the clinician, coupled with a grounding in beneficence (the doctor or healthcare professional knows what is best for the patient). This framework often conflicts with the concept of patient autonomy. This model is most acceptable in emergency situations and to value-neutral, technical decisions. There has been a shift in healthcare in recent decades toward more patient-centered, autonomous decision making.

The Radical individualism model

The patient has absolute autonomy and absolute rights over decisions regarding their body. The patient is capable of assessing alternatives, and healthcare staff members are obligated to adhere with these wishes.

The consumer model

This relationship model is market based. Healthcare is seen as a commodity with the patient as a consumer. This relationship model tends to undermine the caregiver ethos by encouraging emotional disengagement.

Shared Decision-making model

Also known as the reciprocal model or negotiated contract model, the shared decision-making model lies between the extremes of paternalism and radical individualism. It is rooted in the concept of shared humanity in all participants. It emphasizes the relationship to the patient, not the disease.

Holistic healthcare professionals, understanding the experience from their perspective, work with the patient. They recognize that the burden of responsibility for the ultimate decision and change belongs with the patient. The healthcare professional's duty is to educate and empower the patient.

Case study 10

Michael Longfellow is a 60-year-old male patient who was admitted to the hospital after he fell and broke his hip. He had been helpless at home for several hours after the fall because his wife was away from the house. When she returned and found him, he was immediately brought to the hospital by ambulance. On the day of admission, surgical repair was performed.

After surgery, Michael was disoriented for several days. He was confused, belligerent, and had visual hallucinations. Medication for agitation was required some of the time. Michael's blood pressure and pulse rate were high. Eventually, his mental status cleared, and the remainder of the postoperative period went smoothly. Michael's incision began healing, and his vital signs became stable.

Pain management, however, remained a problem for Michael; it was difficult to develop a pain management regimen that enabled Michael to experience pain relief. He was unwilling to practice coughing or deep breathing as recommended because of reported pain. It was a constant struggle to assist him with ambulation exercises, although he had been informed of the dangers from immobility many times. He developed pneumonia, and his hospitalization continued.

His wife and adult children rarely visited and were unwilling to talk with staff members. Michael reported that he had not worked for years and relied on his wife for much of his care and support. He gave vague reasons for this situation, stating that he had been laid off and that there were never any jobs in his field of employment.

The healthcare professional staff began to be concerned as time passed and Michael did not appear to be assuming responsibility for his recovery. He, on the other hand, was eager to return home and pressured his physician to let him go prematurely. The staff called a patient care conference to discuss the discharge plans for Michael.

During the conference, several of the healthcare professionals on the evening shift expressed concern that Michael would not be well taken care of if he were to return home at this time. They had met his wife because she visited in the evening after work. They described her as "cold" and "mean." They were sure that she would provide no assistance to Michael, who would be forced to fend for himself at home.

The night healthcare professionals described ongoing episodes of insomnia that the patient had experienced since his admission. One of the healthcare professionals had found Michael attempting to smoke in his room. She stated that he drank cup after cup of coffee whenever he could. She thought that he was simply a patient who was nonadherent with his treatment plan and should be discharged as soon as possible with home care assistance.

One of the healthcare professionals mentioned the possibility that Michael might have an alcohol use disorder. She cited his delirious episode after admission, his low pain tolerance, and the dysfunction in the family as possible indicators that he might have a substance use problem. The physician added that the hypertensive episode after surgery and the insomnia supported that assessment.

The social worker remembered that Michael's wife had bitterly discussed with her Michael's lack of employment and his previous falls. The social worker admitted that she had focused on the wife's hostility instead of on the possibility of an alcohol use disorder. She added that the behavioral habits of smoking and excessive coffee drinking have been linked in the literature to problem drinking.

It was agreed that the social worker would meet again with Michael's wife and discuss the possibility that Michael has an alcohol use disorder. With the information from that interview identifying Michael with a pattern of problem drinking, it was easier to approach Michael about his problem, and he was, in fact, assessed and referred for treatment of an alcohol use disorder.

Questions

1. What are the staff's issues regarding Michael's nonadherence to his treatment plan?
2. What are some approaches that the healthcare professionals can use when caring for patients who are nonadherent?

Discussion

1. The evening staff healthcare professionals who described the patient's wife as cold and mean were clearly angry. If they had examined their feelings closely, they might have discovered that they were angry with the patient for his unwillingness to participate in recovery. It is often easier to be angry at a healthy, and distant, family member than to be angry with the patient. It can be difficult for healthcare professionals to accept their anger toward a patient who is ill and with whom they interact on a daily basis.

   It seems like the night healthcare professionals felt little compassion for this patient. They were most likely dealing with feelings of powerlessness. Michael was a patient who ignored the rules and the healthcare advice offered to him. Powerlessness is difficult for anyone to experience and is most often masked by anger and rejection. When staff learn how to use techniques of brief assessment and intervention with patients who have alcohol problems and see their role in patient-centered care more clearly, they will feel less powerless.

   Most of the issues of nonadherence in this case study may be attributable to the patient's unrecognized alcohol use disorder. Michael was unwilling to adhere to treatment recommendations because of his as-yet-untreated alcohol use disorder. His wanting to leave the hospital may be, in large part, motivated by his desire to have easier access to alcohol. If he had been discharged to home without treatment of this problem, his chances of a successful recovery would have been low. In addition, his alcohol use would have placed him at risk for more falls and other physical problems.

   In this example, the staff needed to learn to look beyond Michael's nonadherent behavior and find out what was really occurring. He was certainly not following the treatment plan, but it was not simply negativity. There was an unidentified problem beneath the surface that needed resolution before Michael could address his nonadherence.

   Family issues in this case study should not be overlooked. The wife and adult children should be included in discussions, with some focus on their own possible health issues, needs, and feelings as well. Further assessment and referral may be appropriate for the entire family. Because adherence to the treatment plan will be critical for a successful outcome for Michael, paying attention to family issues interfering with adherence is important.

2. Much of the time, the healthcare team is asking the patient to make significant changes in a lifelong pattern of behavior. This is not easy for anyone. Creating attainable short-term goals for which the patient can experience success is helpful in ultimately reaching long-term goals. The healthcare professional provides thorough and appropriate education and training on any aspect of the patient's care plan to enhance cooperation with the recommended treatments and interventions. Use of Internet or smart phone resources can help remind and educate the patient. Teaching family and friends to be alert for signs of changes in

behavior is part of a holistic approach. Establishing a strong sense of rapport is essential to teaching being effective.

It is also useful to discuss with the patient why adherence is difficult for them. Finding the root of the problem and addressing it directly can help with optimizing the patient's ability to carry out the plan of care and achieve the desired health benefits. For example, the patient may not remember to take a prescribed medication because it is effectively working and there are no symptoms triggering the need to keep taking the drug. The healthcare professional can assist the patient with finding other reminders as to when the medication should be taken. Many people have cell phones equipped with alarm features, so teaching the patient how to use this alarm function may be a constructive way to gain adherence to medication use.

Healthcare professionals who acknowledge their own problems make it less likely that those problems will interfere with helping the patient. Healthcare professionals, just like patients, may find it difficult to follow many health-related behaviors. Adherence on the healthcare professionals' part helps patients see congruence in what is practiced by others and what is asked of them. However, examining their feelings is not always the easiest thing for healthcare professionals to do. Because patients present with many different issues, it is likely that situations will arise when the patients' problems match ones that healthcare professionals, themselves, are experiencing. Self-awareness is critical for successful interactions in these situations. Healthcare professionals are not perfect, and they may have unsolved problems and issues, but knowing what they are is important.

There is also the recognition that patients do have the right to nonadherence. Sometimes the patient is making choices for reasons the healthcare professional has not considered. It is essential to examine why the patient stopped (or never started) the treatment as prescribed. There is also a time when patients will have to live with the consequences of their own actions. The self-aware healthcare professional knows that there are limits to what teaching and explaining can do to change the health behaviors of others.

Evidence-based practice! Some technology-based interventions, such as reminder apps on a cell phone or digital patient education are becoming more common, but do they really work? Some clinical trials have been examining the effectiveness of smart phone reminders and education for mental health patients. One meta-analysis (Linardon & Fuller-Tyszkiewicz, 2020) examined numerous clinical trials, and the adherence and improvement in behavior was not consistently improved. Mental health patients often drop out of programs or trials, and low levels of adherence are seen as common for this population. Healthcare professionals can only continue to offer education and support for the patient and their family.

MANIPULATIVE BEHAVIORS

Illness poses a severe threat to a person's security, self-esteem, and autonomy. It results in a loss of self-control and a fear of becoming helpless and dependent. The healthcare system may also place patients in childlike positions. The resulting anxiety may prompt a regression to manipulation as a coping mechanism even in patients who do not typically demonstrate manipulative behaviors.

A DEVELOPMENTAL VIEW OF MANIPULATIVE BEHAVIORS

Before healthcare professionals can intervene effectively, they must understand not only what manipulation is and how they respond to it but also where it begins. How does manipulation become entrenched as a need-gratifying mechanism?

The use of manipulation as an adaptive, need-gratifying mechanism starts early in life. It is defined as an automatic behavioral pattern that infants use to get their basic needs met. They manipulate without any regard for the needs of others. In newborns, who are utterly dependent on others, the use of manipulation is acceptable and, in fact, vital. It is a matter of survival.

As children grow and develop, they test a variety of adaptive maneuvers to manipulate the environment to gratify their needs. If a child's unacceptable behaviors are met with clear and consistent limits delivered by primary caretakers with unconditional love and acceptance (of the child if not of the behavior), then the child will gradually develop a sense of self-esteem and self-control. Slowly, children learn to replace manipulation with more independent, adaptive behaviors.

If, on the other hand, a child's first limit-testing manipulative efforts are met with inconsistent limits or with no limits at all, with conditional love, and with lack of acceptance of the child, then the child will not learn how to fulfill their needs and how to gain love and acceptance from others (Townsend & Morgan, 2017).

ADAPTIVE MANIPULATION VERSUS MALADAPTIVE MANIPULATION

Manipulation, learned early in life, is a process that occurs consciously or unconsciously in virtually all interpersonal interactions.

When manipulation is used in an adaptive sense, it is just one of many behaviors that a person can call on to ensure that their needs are fulfilled. It is neither the only need-gratifying behavior nor the dominant one.

For manipulation to be considered maladaptive, it depends on the

- extent to which it is used as a dominant need-gratifying mechanism.
- degree to which a person is aware of using it.
- degree to which the person is self-oriented and not oriented to others.
- degree to which others are treated as objects.
- effect on others, such as the person who has been manipulated feeling angry but not necessarily being certain as to why.

Unquestionably, the word *manipulator* has taken on a derogatory or pejorative connotation. However, the fact is that everyone manipulates at times as a way of ensuring that needs are met. It is important to understand that isolated instances of manipulation do not make a person a manipulator. It is when manipulation as a need-gratifying mechanism becomes an adult behavioral pattern that it is viewed negatively. When it is adopted as the primary means of decreasing anxiety without the opportunity of learning or experiencing personal growth, then it is problematic.

Healthcare Professional Consideration: For the same reasons younger patients are prone to manipulation, anxiety, lack of control in their environment, low self-esteem, and feelings of insecurity, the elderly are also likely to use such behavior to meet their needs. Although healthcare professionals working with geriatric patients may understand why it is happening, it is no less frustrating to manage. It is important for the healthcare professional to provide information to this population about reasonable expectations and then make every effort to meet those expectations. If something has been promised that cannot happen, the healthcare professional should explain to the patient why this change must be made. Open and honest communication is important in establishing trust and modeling straightforward behavior. One healthcare professional (Kemerer, 2016) notes that consistent therapeutic communication and remaining accountable serve to decrease the likelihood of allegations of neglect or abuse.

IDENTIFYING MANIPULATIVE BEHAVIORS

Healthcare professionals may overuse the term manipulative. After a difficult day or after caring for a string of patients with particularly taxing behaviors, a healthcare professional may be prone to assign the label manipulator to the patient who makes that one final demand that sends the healthcare professional over the edge or to the patient who is just a little too insistent in their self-advocacy. Patients who use manipulation have many requests that begin to seem unreasonable. Asking for a fresh beverage is understandable but asking for another within an hour and then needing more ice, then a pain pill, and then wanting to have a pillow fluffed becomes too much (Riley, 2020). Healthcare professionals who work in correctional or psychiatric settings often experience this manipulation as a stressor (Schoenly, 2017). If the term manipulative is to have clinical meaning, its characteristics must be understood.

Manipulation is not always easy to recognize

Patients who use manipulation are often charming, entertaining, and intelligent. They rarely see themselves as having a problem and are unlikely to seek help on their own. In fact, many individuals who demonstrate manipulative behaviors are loathe to change even when confronted because these behaviors get their needs met (Townsend & Morgan, 2017). When the harmful effect on others is pointed out, these patients may feign guilt or remorse because they are aware that these are the socially acceptable responses. They will not actually feel those feelings, however. Patients with dominant manipulative traits do not have a superego (concerned with moral behavior) strong enough for pangs of conscience to be genuine.

The reaction of healthcare professionals faced with such situations is, understandably, negative. It is sometimes possible to detect manipulation by virtue of a negative reaction to a patient's interaction or request. Sensing that something does not ring true can assist the healthcare professional to suspect manipulative behavior. Universally, healthcare professionals, like most of the population, want to avoid interaction with patients who regularly use manipulation.

Cycle of manipulation

A person has needs to be met but cannot trust the environment to meet them consistently. The ensuing anxiety causes the person to fall back on the earliest need-gratifying mechanism – adaptive maneuvering and manipulation to ensure that their needs are met. If the manipulative behavior is effective, then the anxiety temporarily decreases. The person's needs have been met. However, the pattern of manipulation has been reinforced.

When the same person gets a negative response, they may become angry and frustrated, and anxiety skyrockets. The person again tries desperately to manipulate the environment in an effort to regain control. The pattern is set, especially when the manipulative behaviors work.

Lacking basic trust, the person is caught in an endless cycle of having to resort to manipulative behaviors to ensure that their needs are met. In the process, however, individuals are likely to alienate those around them and generate mistrust from other people. The issue of this loss of trust is key to understanding the pathology of manipulation. The patient who uses manipulation in a maladaptive way has little concern for the wants and needs of other people. Because individuals who use manipulation do not trust their own feelings, they cannot trust others. This lack of trust leads to a sense of loss of control, and the individual tries to regain a sense of self-mastery by controlling others.

Evidence-based practice! There are a variety of measurement tools available to attempt to decipher personality traits. Exploring manipulative behavior is of interest to many, especially because of its apparent connection with delinquent and/or criminal behavior later in life. Bergstrom and Farrington (2018) investigated whether the use of one or more scales could be predictive of psychopathology in adulthood. The data were supportive of a connection between high scores on callous-unemotional traits combined with high scores on daring-impulsive ones pointing to a higher risk in childhood and outcomes as adults that were below normal.

THE HEALTHCARE PROFESSIONAL-PATIENT CYCLE OF MANIPULATION

The patient who exhibits manipulative behaviors is uncannily adept at seeking out the unique weaknesses and vulnerabilities of others and using those weaknesses and vulnerabilities to gain control. Their manipulative behavior can be active or passive.

Active manipulation may involve any of the following behaviors:

- *Making demands*: "I want my medication at 9 o'clock, not 8 o'clock. I don't care about your rules!"
- *Violating rules and routines*: "Oops! I forgot I was supposed to be measuring my urine. Guess I'll need to stay another day so you can get a complete sample."
- *Making threats*: "If you don't get that guy and his obnoxious family out of my room this minute, I'm going to tear up this place – and you along with it!"

Manipulative behaviors can also be passive and more subtle:

- *Eliciting pity*: "Can't you understand how hard it's been for me lately? My husband is leaving me for another woman, my two kids are out every night until 1:00 a.m., and my son wrecked a brand-new car last weekend. Wouldn't you drink too?"
- *Ingratiating and flattering*: "You're the only one on this unit who can possibly understand me. I don't even know why you're working here – you're so much smarter than the rest of them. And prettier too."
- *Evoking guilt feelings*: "Well, if you had come in here to talk to me at 2:15, when you said you would, I wouldn't have gotten so depressed, and I wouldn't have had to cut my wrist."
- *Abusing compassion*: "You said you understood how hard it was for me to be in this hospital, so I was sure you'd understand why I needed to sneak out this morning. I'm back now, so take it easy. Why do you have to search me? You said you trusted me!"
- *Attempting to exchange roles and become the helper's helper*: "I heard you tell one of the healthcare professionals that you're having trouble with your son. I can't believe he doesn't appreciate having a mother like you. I'm about his age, I'll bet. Tell me what he's doing. Maybe I can help."
- *Pitting staff members against each other*: "I couldn't get that other healthcare professional to understand why she should persuade the doctor to discharge me tomorrow. She said not to discuss it with you because you're too new to understand the rules yet. But I know you understand my situation. Will you explain it to my doctor? And pick a time when she's not around to interfere."
- *Questioning competence or authority*: "My doctor said that I could have another sleeping pill if the first one didn't work. Can't you even read a chart? Well, you're not in charge around here anyway. We'll see what happens to your job when the unit manager comes in tomorrow."

In each of the foregoing examples, patients seized on a particular need of the healthcare professional (the need to be professionally competent; to maintain a safe, consistent environment; to be viewed as empathic and understanding) and geared their behavior to exploit the healthcare professional's weaknesses or therapeutic vulnerability.

When healthcare professionals realize they have been successfully manipulated, their likely response is a range of negative feelings and behaviors, including anger, frustration, indifference, and withdrawal. Although patients with manipulative behaviors will enjoy these

responses as signs of their power, they will also feel an inward sense of increasing anxiety because once again they have successfully managed to manipulate someone. Can no one be trusted? Will no one ever be able to see through them and give them what is truly needed – a sense of realistic limits and a genuine feeling of self-control? The vicious cycle of manipulation can play out repeatedly between healthcare professional and patient when manipulative behaviors are not accurately identified, and healthcare professional interventions are not put in place to halt the cycle. It is essential that firm, realistic limits be set and then followed with all patients. The limits should be communicated clearly and openly, with an appropriate rationale. Although there should be consequences for nonadherence, they should not be punitive but should be set to reflect the best interests of the patients. Table 4 summarizes steps that are helpful in setting limits for patients who act in a manipulative manner.

If healthcare professionals are to stop the cycle, self-awareness is vital. If they have difficulty with their own self-esteem, they will be vulnerable to manipulative behavior. The key is for healthcare professionals to be aware of their needs so they will know when they are being exploited. They also need to be aware of their own responses, such as feelings of anger, need to withdraw, frustration, or loss of objectivity, as indicators that they are being manipulated. Only then can they be effective in helping patients find more adaptive ways of getting their needs met.

Table 4. Ten Steps to Setting Limits with Patients Who Exhibit Manipulative Behaviors

1. Define clear expectations.
2. Communicate expectations positively and firmly.
3. Limit only those behaviors that clearly impinge on the well-being of the patient or others.
4. Make sure that the limits are in the patient's best interests and are not punitive.
5. Offer a brief rationale for the limit but do not engage in a debate about its fairness or justification.
6. Define the consequences of exceeding the limit, and make sure that they are consequences that can be fulfilled.
7. Hold all discussions related to limit setting on a one-to-one basis, in private. (This limits the opportunity for the patient to involve an "audience" in determining whether the limit is "fair.")
8. Make sure that all staff members understand the limit and its consequences as they were communicated to the patient.
9. Stand firm in the face of the inevitable testing of the limit.
10. Provide positive reinforcement every time the patient is able to meet the limit.

Based on Reach, G. (2016). Patient education, nudge, and manipulation: Defining the ethical conditions of the person-centered model of care. Patient Preference and Adherence, 10, 459-468. https://doi.org/10.2147/PPA.S99627; and Townsend, M. C., & Morgan, K. (2017). Essentials of psychiatric mental health nursing: Concepts of care in evidence-based practice (7th ed.). F. A. Davis.

DIAGNOSTIC ASSESSMENT

The following are the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5) diagnoses and North American Nursing Diagnosis Association (NANDA) nursing diagnoses that might be applicable to patients who demonstrate manipulative behaviors. Of course, circumstances may warrant additions to the list of diagnoses for any specific patient, but those listed here are likely for anyone with manipulative behaviors.

DSM-5 psychiatric diagnoses

As noted earlier, manipulative behaviors are ubiquitous. Healthcare professionals may encounter manipulation in any patient, on any unit, and in any circumstance. However, patients with the following DSM-5 diagnoses are more likely than others to show characteristics of manipulation (American Psychiatric Association, 2013):

- Conduct disorders
- Feeding and eating disorders
- Personality disorders
- Factitious disorders
- Substance use disorders

These DSM-5 diagnoses provide "red flags" to the possibility of the use of manipulative behaviors by patients. Any healthcare professional assigned to a patient with one of the diagnoses in this list should be on the alert for manipulative behavior. However, it would be an error to rely on the DSM-5 diagnoses as a sole indicator.

Many patients who have one of these diagnoses may not be maladaptively manipulative. The opposite is also true. Many patients who do not fit one of these diagnostic categories may use manipulation as a primary need-gratifying mechanism. A thorough healthcare professional assessment will help the healthcare professional identify manipulative behaviors regardless of the patient's diagnosis.

NANDA nursing diagnoses

The NANDA nursing diagnoses that are most often associated with manipulative behaviors are the following (Herdman & Kamitsuru, 2018):

- Impaired social interaction
- Coping (e.g., ineffective, compromised family, defensive)
- Self-esteem (e.g., chronic low, situational low, risk for low)
- Anxiety (e.g., mild, moderate, severe)
- Fear
- Risk for loneliness

INDEPENDENT HEALTHCARE PROFESSIONAL INTERVENTIONS

Patients who use manipulation as a means to have their needs met present a challenge for healthcare professionals. Patients may be unable and unwilling to recognize their maladaptive manipulative coping mechanism. Even when the healthcare professional points it out, the patient may not be willing to change. As noted previously, manipulation is inherently rewarding. However, manipulation also has a way of alienating others and making it impossible for the patient to form meaningful relationships. The healthcare professional who can help patients recognize the effects of their manipulative behavior and find alternative need-gratifying mechanisms will do much to improve their patients' quality of life. Role-modeling straightforward behavior is an effective way to encourage patients to lessen their manipulative behaviors.

Gaining the patient's trust, although difficult, and sometimes not possible, is something the healthcare professional should work toward. Trust-building behavior includes being on time for treatments or other appointments with the patient, never promising something that cannot be delivered, and remembering things the patient has related. In addition, healthcare professionals must accept that patients may say hurtful things and not take them personally; patients who use manipulation make such remarks to everyone. Self-confidence on the part of the healthcare professional is important because patients who use manipulative behaviors will try their best to gain power by undermining the healthcare professional's knowledge, skill, and competence.

Consistency will help gain rapport with patients using manipulation. All staff members must agree on a plan and follow through with it. Individually, healthcare professionals must remain consistent day to day in their expectations and responses. See Table 5 for healthcare professional interventions that may be useful in caring for patients who use manipulative behaviors.

Table 5. Healthcare Professional Interventions and Rationale for Managing Patients' Manipulative Behaviors	
Independent Healthcare Professional Interventions	Rationale
Establish a trusting relationship.	Establishing a trusting relationship is as difficult as it is vital. ● Deception is a way of life for the patient who uses manipulation, but every healthcare professional intervention is based on the foundation of a trusting healthcare professional-patient relationship. ● It may be the first trusting relationship that the patient has ever had in their life. Allow time for trust to develop.
Help patients recognize their manipulation and potential causes of their behavior.	Patients cannot be helped to find more adaptive ways of living if they do not recognize their current behavior as a problem and take responsibility for the circumstances in which they find themselves.
Provide a consistent environment.	Inconsistent caretaking is at the root of the development of maladaptive manipulation as a coping mechanism in early childhood. ● The goal of manipulation is to somehow make the environment safe and secure. ● Knowing what to expect decreases the patient's anxiety and helps them learn to trust others and the environment. ● In addition, consistency reduces the patient's opportunity to divide the staff by manipulating them.
Formulate short- and long-term goals to ensure that every member of the staff carries out the care plan as consistently as possible.	Consistency is vital to ensuring that the patient cannot manipulate by "splitting" the staff – all team members should provide input in setting goals. Short-term goals include the following: ● Recognize and verbalize feelings of anxiety, frustration, or powerlessness. ● Recognize instances of manipulative behavior. ● Gain insight into the effect of manipulative behavior on others. ● Distinguish between wants and needs and learn to delay immediate gratification of both. ● Verbalize acceptance of responsibility for own actions. ● Limit manipulative behavior and determine and practice alternative methods of gratifying needs. Long-term goals include assisting the patient to achieve the following: ● Determine and express needs in a clear, direct manner that does no harm to others. ● Demonstrate responsibility for their own actions.
Recognize and refuse to respond to manipulation.	Refusing to support the manipulative behavior tells patients who are manipulative that you the healthcare professional cannot be used as an object. They will have to find another way to get the healthcare professional to meet their needs.
Do not accept the behavior but accept the patient.	Patients who manipulate are in desperate need of acceptance and positive regard. The healthcare professional should recognize the patient's behavior as manipulative rather than label the patient as a "manipulator."
Help the patient to understand the impact of their behavior on others.	Do not assume that empathy comes naturally to patients who manipulate. Help them develop an awareness of their impact on others by being honest about how it feels to be manipulated.
Set limits that are reasonable, clear, firm, and consistent.	Although patients will most likely rail against limits, they will be enormously relieved by them. Limits will provide the external control patients need until they can develop internal control.
Provide positive reinforcement every time the patient is able to: ● communicate needs directly, ● take responsibility for their own actions, or ● accept limits.	The patient needs to recognize not only unacceptable behavior but also acceptable behavior. Reinforcement of positive behavior is likely to elicit more of the same.
American Nurses Association, American Psychiatric Nurses Association, & International Society of Psychiatric-Mental Health Nurses. (2014). Psychiatric-mental health nursing: Scope & standards of practice (2nd ed.). Townsend, M. C., & Morgan, K. (2017). Essentials of psychiatric mental health nursing: Concepts of care in evidence-based practice (7th ed.). F. A. Davis.	

Manipulation tactics can include flattery, interest, or praising one healthcare professional while degrading another healthcare professional. This attempt at control is usually the means to an end; there is some goal in mind for power, entertainment, or privileges. Manipulation is so prevalent in some settings that healthcare professionals have developed theories and strategies to better manage the difficulties associated with these patients' behaviors (Schoenly, 2017).

Intentionally developing social maturity, which includes the emotional strength and ego to recognize and deflect manipulation, is an important goal for healthcare professionals. Healthcare professionals' benefit from learning to recognize intrinsic rewards such as knowing they have made a difference and helped someone else transcend to a higher level of functioning. For patients who use manipulation, healthcare professionals must clearly set the healthcare professional-patient relationship with appropriate professional boundaries and maintain those boundaries (Schoenly, 2017).

Patients often use a combination of charm and manipulation to disturb the flow of care on a healthcare professional unit. These patients can be difficult. One moment one healthcare professional will be the only healthcare professional who can care for the patient, then the patient will refuse to see that healthcare professional (Schoenly, 2017). Reflection on each experience with a fellow team member can be helpful for healthcare professionals. Meeting frequently to ensure all staff members (even non-healthcare professional staff) are applying the same rules to patients who manipulate is recommended. It is critical to understand that the underlying aspect of this personality trait is stable and enduring. It is difficult to change a pattern of behavior, but consistency and a caring and professional approach must be maintained to begin to make a change.

The management of "difficult" patients leads to frustration, stress, and burnout for healthcare professionals. The team needs to work cohesively and reflectively and offer support to all team members. Training to work with patients who use manipulation will reduce burnout and increase job satisfaction, while continuing to provide care to all those who need it. Mentoring healthcare professional colleagues is highly recommended for situations involving patients with manipulative behaviors.

Case study 11

David Andrews, a single, 32-year-old White man, has been admitted to the general surgery unit for a hernia repair. His healthcare professional, Bonnie Blake, introduces herself and welcomes him to the hospital. Bonnie is a recently divorced 28-year-old and has been a registered healthcare professional (RN) for about 6 months. She explains to David that she will need to ask a series of questions, some of which he may already have answered, but that she would like to hear his answers herself. David says he will be very happy to answer questions asked by such a cute healthcare professional. He tells Bonnie that he hopes she is his healthcare professional the whole time he is in the hospital and will meet his "every need, if you get what I mean!"

Self-Assessment Quiz Question #13

How should Bonnie interpret David's last remark?

a. David is probably very nervous about being admitted to the hospital.
b. David is a big flirt.
c. David is probably guilty of sexual harassment in his work situation.
d. It is hard to be sure of how to interpret his remark at this point.

Case study 12

Bonnie begins her assessment by asking David ordinary questions such as his name, address, date of birth, and marital status. Each time he answers, David adds a short comment such as, "Yes, I already answered that one" or "Seems like you people could pass along information better; are you people all incompetent?"

Self-Assessment Quiz Question #14

Which would be the best response for Bonnie to make to David's comments?

a. "I told you these questions may have already been asked."
b. "I agree that all this makes things very repetitious."
c. "I do understand your frustration, there aren't too many more items."
d. "I really wish you'd stop interrupting, then we'd get done sooner."

Case study 13

When asked the question about marital status, David replies, "I'm single, who wants to know?" and gives Bonnie a wink. He then asks her what her marital status is.

Self-Assessment Quiz Question #15

What is the best response for Bonnie to make at this point?

a. "That's really none of your business."
b. "Hey, I'm asking the questions here!"
c. "That is not the purpose of this interview."
d. "If I tell you, will you start just answering what I ask?"

Case study 14

Bonnie is becoming increasingly uncomfortable and decides she needs to take a short break from this interaction. She tells David she needs to check on something and will be back as soon as she can. As she leaves the room, David calls out, "You hurry back, you sweet thing, I'll miss you while you are gone!"

Questions

1. Why is Bonnie feeling so uncomfortable?
2. Why is David behaving the way he is?
3. Is Bonnie making a good decision to "take a break"?

Discussion

1. More than likely, Bonnie is uncomfortable because David is behaving inappropriately, and she is unsure what to do about it. Although David is cooperating by answering the questions, he is making remarks that undermine Bonnie's confidence in her ability to provide competent care. He is putting their relationship on a personal, rather than professional, level, and is treating her as a potential date, not his healthcare professional. As a new RN, it is normal that Bonnie does not yet have complete confidence in her abilities. On top of that, as a recently divorced woman, she possibly has doubts about her desirability as a woman.

Because his behavior is inappropriate for the setting, Bonnie cannot be sure what David means by his flirtatious remarks; does he actually find her attractive, or is he teasing her? With the ambiguity and Bonnie's lack of experience, it is not unusual that she would become anxious in her interaction with David.

2. David may be nervous about having to be admitted to the hospital. The behavior he is exhibiting might demonstrate an attempt to gain control of an unfamiliar situation. He is manipulating his healthcare professional in such a way that gives him the upper hand, in his opinion at any rate. Or David might simply be used to this sort of interaction under any circumstance. Whatever his reasons for this manipulative behavior, David will have difficulty getting his needs met in this manner. Instead of gaining the support and help he needs, he alienates people and causes them to avoid him.
3. Given the fact that Bonnie is becoming extremely anxious and feels like she is losing control of the interview, taking a break is not an inappropriate decision. Although there are other ways to deal with the situation, Bonnie has found a way to interrupt the seemingly downward turn that the interaction was taking.

Case study 15

Bonnie finds her supervisor and tells her that she is very uncomfortable with David. She asks if she can be reassigned to a different patient and let Joe, another RN on the unit, take over for her with David. The supervisor tells Bonnie that it would be better if she learned to manage patients with manipulative behaviors and that, for now, the assignments remain as they are. The supervisor does spend a bit more time with Bonnie and asks her what, specifically, is making the interview so uncomfortable and what she thinks would be the best thing to do about her discomfort.

Question

Is the supervisor making the right decision in having Bonnie continue to work with David?

Discussion

At least for the present, the supervisor seems to be making the right decision. Bonnie will encounter all sorts of people in her career as a healthcare professional and will not have the luxury of changing assignments every time she is uncomfortable with one of them. She needs to develop the skills to work effectively with all types of behaviors exhibited by patients. Given his manipulative behaviors the patient has made her uncomfortable, but her supervisor sees this as a good learning experience and offers support by talking over the difficulties Bonnie is encountering.

Self-Assessment Quiz Question #16

On hearing her supervisor tell her that she will continue as David's healthcare professional, Bonnie's first reaction is to plead her case and ask her supervisor to reconsider. What is the supervisor's best response?

a. "Tell me more about your feelings of discomfort."
b. "All new healthcare professionals are a bit uncomfortable at first."
c. "No, I can't reassign you to another patient."
d. "What if everyone wanted to switch assignments?"

Self-Assessment Quiz Question #17

Which of the following would be the best way to resume the interview once Bonnie has returned to the assessment room?

a. "Sorry for the delay, let's start where we left off."
b. "OK, David, let's try to stay on track now that I'm back."
c. "I'm back to continue where we left off – if you can cooperate by simply answering my questions."
d. All right, we'll continue with your assessment. I hope you can avoid any more inappropriate remarks."

Conclusion

Healthcare professionals should never underestimate the potential for violence; assaults by patients – young or old, male, or female – can occur for many reasons. This course explored how healthcare professionals will encounter difficult or hard to manage patients during their career, including workplace violence, non-adherence to medical treatments, and manipulation of caregivers and the treatments and skills needed. This course demonstrated how healthcare professionals can avoid potentially violent situations and work with difficult patients by being prepared and recognizing the signs and risk factors for these occurrences. It also explores how healthcare professionals must deal with their own feelings toward difficult patients while treating them. De-escalation skills, diagnosis, preventative measures, training, and planning are all presented in this course to help healthcare professionals respond to difficult patients and ensure a healthy and safe environment.

Glossary

Adherence: The term adherence describes the degree to which a person's behavior corresponds with the agreed recommendations from a healthcare provider. Adherence acknowledges that the patient is part of the decision-making process. To promote adherence, hospitalization must become an experience in which patients maintain control over most of what happens to them. Healthcare providers are finding new ways to alleviate the dilemmas that patients face when hospitalized. An example is the patient-controlled analgesia pump for self-administration of pain medication. Use of this device reduces the patient's dependence on the healthcare professional for comfort and, in many cases, reduces anxiety about pain control.

Compliance: The term compliance is used to describe the degree to which patients follow their healthcare providers' recommendations. It implies a patient-healthcare provider hierarchy, or a power differential in the relationship, in which the patient is relegated to a subordinate role. Some healthcare professionals believe this has a negative influence on patient compliance with the healthcare provider's recommendations.

Noncompliance: The North American Nursing Diagnosis Association (NANDA) definition of noncompliance is when the actions of the patient do not follow the health-promoting or therapeutic plan agreed on with the healthcare team (Herdman & Kamitsuru, 2018). A plan of action for involvement and agreement with the management plan is needed.

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MANAGING DIFFICULT PATIENTS FOR HEALTHCARE PROFESSIONALS

Self-Assessment Answers and Rationales

1. The correct answer is D.
Rationale: The important thing is to get the medication in the patient quickly.

2. The correct answer is C.
Rationale: Martha will likely feel like a failure because her supervisor had to give the injection. Susan can explain to Martha that it is difficult to ignore some of what she was taught in school, even in emergency situations. Susan shares that with more experience, it is easier to do this simply because she has given "millions" of shots and can better determine where to place the needle from her experience.

3. The correct answer is B.
Rationale: While Astrid is available, it would be important for Jackie to get this information from her. Asking Erik directly about his "mood swings" and informing the doctor about what Astrid reported are actions Jackie could take later.

4. The correct answer is C.
Rationale: Even though Erik is sleeping now, it does not eliminate the possibility that he might become disturbed.

5. The correct answer is C.
Rationale: This is a situation that needs attending to as soon as possible and it may take more than one person to handle it.

6. The correct answer is A.
Rationale: Although all actions are needed, the priority is the safety of Erik and the staff. Getting other staff to the room to help calm Erik would most quickly accomplish that goal.

7. The correct answer is C.
Rationale: Stating the facts about the situation first followed by letting Erik know the staff are there to help calm him will not come across as accusatory or belittling to Erik.

8. The correct answer is A.
Rationale: This approach provides Erik with an opportunity to tell the staff in his own words what has been bothering him.

9. The correct answer is D.
Rationale: Jackie is seeking answers to help her understand Erik's behavior. At this point, there is not a definitive answer to Jackie's question. The interventions in plan will help the team to gather more information to better understand Erik's behavior.

10. The correct answer is D.
Rationale: Preventing harm to the patient and staff and providing a safe environment is important. This is precisely what the nurses and other staff in this scenario did. They focused on the needs at hand and implemented appropriate interventions based on the observed behavior.

11. The correct answer is C.
Rationale: Patients who are experiencing mania feel highly energized and motivated during this phase of their illness. They believe they feel well, although they often have anxiety and inappropriate behaviors such as compulsive spending or numerous unfinished products.

12. The correct answer is C.
Rationale: As much teaching as possible is needed for both this patient and his family. It would not be unusual for a patient to try to hide the nonadherence to medications prescribed from his family.

13. The correct answer is D.
Rationale: Any of the other responses might be true, but it is a little early to make any definitive judgments.

14. The correct answer is C.
Rationale: Answer c acknowledges that the process is cumbersome without taking sides or "scolding" David.

15. The correct answer is C.
Rationale: Answer c is the appropriate response so as not to be rude or flirty or create a bargaining situation.

16. The correct answer is A.
Rationale: This will help Bonnie to focus on the feelings she is having about the situation and, hopefully, what is at the root of her discomfort.

17. The correct answer is A.
Rationale: At least to begin with, it would be best for Bonnie to start with a clean slate and not address David's previous behavior. If it continues, then Bonnie will need to say something, but it would be best to first wait and see how things progress from the new starting point.

Course Code: ANCCNJ05MP

Management of PTSD for Healthcare Professionals

1 Contact Hour

Release Date: August 10, 2021

Expiration Date: August 10, 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 health care 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

Stress is an adaptive response to demands or challenges made on an individual that might be required for survival. Adapting to stressful events is an individual response, and treatment is best targeted to the time immediately after the trauma. Post-traumatic stress disorder or PTSD has long-term physical and psychological sequelae that can affect the health and lifelong functioning of the patient. The purpose of this course is to help health care workers in their treatment of patients with PTSD, and to provide early intervention which can include psychological and pharmacological treatment. This course helps to prepare health care professionals to differentiate types of trauma, analyze a patient's response to trauma, and provide appropriate traditional and holistic treatment options.

Learning objectives

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

- Differentiate among the types of trauma in adults and children.
- Interpret the patient's neurobiological response to trauma.
- Apply psychological and pharmacological treatment concepts for patients with posttraumatic stress disorder.

How to receive credit

- Read the entire course online or in print which requires a 1-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

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Activity director

Lisa Simani, APRN,MS

Disclosures

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Course verification

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

INTRODUCTION

Seldom do people live a full life without exposure to some type of trauma. Many people are able to process and heal from trauma, whereas others face long-term mental and physical health consequences. There is significant research on the trait of resilience, which changes how a person responds at a neurological level (Norbury & Feder, 2019). There are effective treatment approaches to caring for those who have been exposed to traumatic events, but not everyone has access to these interventions. It is important to integrate trauma-informed care into all healthcare settings to help reduce the negative effects of trauma (Halter, 2018). Sources of trauma are varied and may include the following:

- War
- Rape
- Childhood abuse
- A mother experiencing a traumatic birth
- Domestic violence
- Stalking events
- Cults
- Sudden death or illness of a loved one
- Natural disaster
- Vehicular trauma
- Refugee experiences
- Deportation
- Near-death experiences
- Witnessing or experiencing violence
- Other events that are perceived as extremely stressful

EPIDEMIOLOGY AND TYPES OF TRAUMA

Regardless of the triggering event, trauma is the reaction to an incident that is perceived as an extreme stressor and tests people's coping mechanisms. There may be long-term consequences to both mental and physical health. For many years, shell shock and other labels resulting from the atrocities of war have been identified.

Most of the current understanding of post-traumatic stress disorder (PTSD) comes from trying to understand and help military veterans returning from the Vietnam War. PTSD was first introduced into the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; American Psychiatric Association, 1980) in 1980 (Townsend & Morgan, 2017). It has been expanded upon in DSM-5 (APA, 2013).

According to the U.S. Department of Veterans Affairs using data from the National Comorbidity Survey Replication (2001-2003) and 5,692 adult participants, it was estimated that 6.8% of adults have a lifetime prevalence of PTSD (Gradus, 2017). The lifetime prevalence of trauma for women is 50% and for men is 60%. About 10% of women develop PTSD at some point in their life, whereas for men the numbers are closer to 4% (National Center for PTSD, 2019a). For those veterans returning from war, between 11% and 20% of those in Operations Iraqi Freedom, about 12% of those in Desert Storm, and about 15% of those in the Vietnam War developed PTSD. The numbers are probably higher because of the reluctance to seek diagnosis and treatment (National Center for PTSD, 2019b).

Anger, depression, traumatic brain injury, pain, sleep issues, substance abuse, grief, and suicide are common related problems. Suicide risk is substantially higher for those survivors who have experienced significant trauma and is higher in those with PTSD. Veteran suicide rates are higher than in the general population (National Center for PTSD, 2019c).

For children, it is more difficult to estimate the prevalence of PTSD, but it is known that children who experience trauma develop PTSD more often than adults (Gradus, 2017). One analogy to explain this is to consider a traumatic event in the context of life experiences. If a traumatic event could be imagined to be one drop of blue food coloring and life experiences as water, an adult has a swimming pool full of life events and coping mechanisms. A child's life experiences are more akin to a glass full of water. That one drop of trauma (food coloring)

will make a much bigger difference in a glass of water compared with a swimming pool full of water. Children who are living in poverty, have reduced social support, or are in a minority group are at higher risk for trauma and its consequences. Prevalence of PTSD is higher for girls than boys, but statistics for young children are not available (National Center for PTSD, 2019d).

Evidence-based practice! In the United States, about 7 to 8 in 100 people will experience PTSD in their lives (Anxiety and Depression Association of America [ADAA], 2018). For those who have experienced traumatic events in their past, there is a higher risk of PTSD with subsequent trauma (ADAA, 2018). Immigrants are high risk for trauma and PTSD. A 2019 study examining PTSD, depression, and somatization in those refugees who arrived in Germany found that 34.9% met the criteria for PTSD (Nesterko et al., 2020).

NEUROBIOLOGICAL ASPECTS OF TRAUMA

The fight-or-flight response to a perceived threat has been part of the human experience since the beginning of time and serves the purpose of allowing the body to respond to potential danger. It was first described as a complex physiological response that prepares the body for fighting or running away from the threat. In the body, the sympathetic nervous system responds and triggers the hypothalamus in the brain, which in turn secretes hormones. There is a cascade of neurochemicals that has a ripple effect on all body systems including immune function.

Respirations and heart rate increase and more oxygen becomes available in the arms and legs, so that the person suddenly has increased strength (to fight or run away). A major part of the brain-hormonal-immune reaction, the hypothalamic-pituitary-adrenal (HPA) axis, influences physical and psychological functioning. Adrenocorticotropic hormone is released from the hypothalamus, and immune function and digestion are suppressed. If there is a direct threat, the body does not need to be working on that one cancer cell or digesting the pasta that was eaten at lunch. Natural killer cells and pathogen-fighting cells are diminished. The ability to self-heal is reduced, but other first-aid systems become more active. For example, there is an increase in platelets to prepare for potential bleeding. Cortisol released in response to stress increases body inflammatory processes, and there is an increased susceptibility to infection, allergy, and cell mutation. The effect is cumulative, and the longer the exposure or reaction to the stressor, the greater the severity of imbalance to health (Gutierrez & Lam, 2018).

When trauma first happens, shock, denial, and other grief reactions are common. Longer term consequences are erratic emotions, flashbacks, anxiety, and physical symptoms such as nausea, anorexia, and headaches. There may be an inability to move on with normal life.

The younger a person is when trauma is experienced, the more significant its effects on the brain and the more profound the lifelong consequences can be. Early childhood trauma has a profound effect on growth and development. These adverse childhood experiences are a large impact for a child with very few life events to date. Functional magnetic resonance imaging (MRI) and computed tomography scans show that the brains of patients who had early trauma have different structure and function from the brains of those who did not experience early trauma. The amygdala (center for emotions), the hippocampus (memory), and the prefrontal cortex (thinking part that regulates emotions from the amygdala) all play a role in the normal stress response and together change the stress response in the patient with PTSD long after the threat is over.

The most profound effect of trauma can be seen in the hippocampus. Patients with PTSD show reduction in the volume of the hippocampus, and the result is difficulty distinguishing between past memories and current experience. This explains why a war veteran reacts as if in dire danger when a sonic boom is heard overhead or a child who was sexually abused responds with terror to the familiar smell of the pipe tobacco the perpetrator smoked. In the prefrontal cortex of a patient with PTSD, there is decreased volume and function, thus the patient is unable to control fear and extreme stress responses when there is no need to be afraid. The amygdala shows hyperresponsiveness on functional MRI that can be triggered by general emotional stimuli that are not trauma-associated. The more hyperresponsive the amygdala, the stronger the severity of PTSD symptoms including flashback, increased startle reflex, and intrusive memories. All of these brain functions have genetic links to reactivity that can increase the risk for developing PTSD. Changes in these and other circuits provide the explanation for the symptoms of PTSD; it makes sense that relationships and self-esteem suffer as a consequence. The biological changes in the brain have been found to be even more profound if the trauma was pervasive, severe, and experienced early in life.

The brain's response to inflammation is also altered, and there is a ripple effect in the patient's immune function; in turn, physical health is impaired. This predisposes the trauma survivor to a higher incidence of autoimmune and inflammatory diseases such as cardiovascular disease, metabolic syndrome, type 2 diabetes, rheumatoid arthritis, Crohn's disease, irritable bowel syndrome, and neurodegenerative diseases to name a few (Sumner et al., 2017). The higher levels of circulating interleukins, cytokines, tumor necrosis factor-alpha, and other inflammatory factors are comorbid in depression and numerous chronic inflammatory diseases (O'Donovan, 2016). The long-term consequences of trauma can carry into physical health through the links to inflammation.

DIAGNOSTIC ASSESSMENT

This section lists the criteria related to a diagnosis of PTSD found in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) as well as North American Nursing Diagnosis Association (NANDA) nursing diagnoses that might be applicable to patients with PTSD. Of course, circumstances may warrant additions to the list of diagnoses for any specific patient, but those nursing diagnoses listed here are likely for anyone experiencing PTSD.

DSM-5 **psychiatric diagnoses**

The American Psychiatric Association (2013) revised the PTSD diagnostic criteria in the *DSM-5*. PTSD is included in a new category called Trauma- and Stressor-Related Disorders. To be diagnosed with PTSD, the patient must meet certain diagnostic criteria.

Criterion A includes exposure to a traumatic event that can be described as witnessing or experiencing a threat to well-being or learning that a relative or close friend is exposed to such trauma. Criterion B includes the following symptoms of PTSD:

- Intrusive thoughts
- Flashbacks
- Night terrors and nightmares
- Emotional distress
- Physical reaction to trauma reminders

Criterion C includes showing avoidance of stimuli or reminders related to the trauma. Criterion D includes experiencing at least two of the following negative thoughts and feelings related to the trauma event:

- Memory impairment of the event
- Exaggerated blame for the event on self or others
- Disturbed negative affect
- Decreased involvement in life activities
- Feelings of isolation

Criterion E includes having at least two negative reactions to the trauma such as the following:

- Irritability or aggression
- Hypervigilance
- Risky or destructive behaviors
- Difficulty concentrating or sleeping

If these symptoms last more than 1 month (Criterion F), create difficulty with day-to-day functioning (Criterion G), and are not linked with any medication or other outside influence (Criterion H), then a diagnosis of PTSD is appropriate (American Psychiatric Association, 2013).

NANDA health care professional diagnoses

The NANDA nursing diagnoses related to PTSD may include the following:

- Anxiety (e.g., mild, moderate, severe, panic)
- Coping (e.g., ineffective, readiness for enhanced, compromised family, defensive)
- Actual or risk for posttraumatic syndrome or risk
- Sleep pattern disturbed
- Actual or risk for trauma

Health Care Professional Consideration: Given the prevalence of history of trauma in the general public, nurses must be knowledgeable and competent in their assessment of the signs, symptoms, and lasting impacts. Being able to assess for the physiological and emotional sequele of traumatic experiences is an important skill in nursing practice (Herdman & Kamitsuru, 2018).

TREATMENT APPROACHES

Immediate help with handling the consequences of the trauma is critical. Help in coping with and recovering from a natural disaster or violence exposure increases the patient's resources and addresses current sources of stress.

Early interventions

Acute stress disorder or ASD, is a reaction to trauma that begins immediately after the event and lasts from 3 days to 1 month. For those diagnosed with ASD, there is a sense of numbing, unreality, distress, hyperreactivity, and reliving of the event. There may also be sleep disturbances, angry or aggressive behavior, avoidance of talking of or thinking about the event, restlessness, exaggerated startle response, and memory distortion related to the trauma.

Prevention of PTSD is possible through the recognition and treatment of ASD (Veteran's Affairs, 2021). The health care professional must allow for expression of emotional distress in a safe environment. For example, after a school shooting, counselors meet with the students and teachers to help them process the experience in a group where the shared experience of grief is part of the healing process. Early in the process of treatment of acute stress, the aim should be to prevent the long-term consequences of PTSD. Allowing a mother to tell her traumatic birth story over and over can be healing, and this telling may reduce the risk of PTSD. Care must be individualized because patients will respond differently. Coping positively is defined by the survivor's ability to regulate emotion, sustain positive self-esteem, continue with necessary tasks, and maintain rewarding interpersonal relationships (National Center for PTSD, 2019e; Shaley, 2016).

There needs to be continued evaluation of symptoms over the first weeks of recovery and consistency of interventions such as sleep medication or anxiolytics to help the body fight inflammation that interferes with health. Examine support and social relationships since positive support reduces symptoms. Looking for changes in inflammatory factors in the immediate period after the trauma and treating that with an anti-inflammatory agent may lessen the long-term effects, but more research is needed before this becomes part of the ASD treatment protocol (Deslauriersa et al., 2017). Recognizing that early in the post trauma period these patients need to reduce inflammation naturally with attention to sleep, diet, physical activity, and self-care (O'Donovan, 2016) is important to assist recovery.

Short-term (less than 2 weeks) use of anxiolytics has been found to improve sleep and reduce trauma symptoms such as intrusive thoughts and nightmares, but caution must be taken because of the risk of dependence (National Center for PTSD, 2019e). Oversedation reduces the patient's ability to process and learn from the experience (Shaley, 2016). Protection from subsequent trauma or further exposure to stress will come from use of available healing resources. Table 1 provides specific approaches to dealing with early trauma.

The presence of secondary stressors (loss of home, police interrogation, medical illness) further complicates recovery from the acute phase of trauma. Support from family and healthcare professionals for coping with secondary stressors can make all the difference in long-term recovery.

Crisis intervention and stress management training help reduce distress and allow effective coping. Cognitive behavioral therapy, or CBT, interventions administered within the 1st weeks after trauma reduce rates of PTSD in studies of sexual assault, violence, and accident survivors (Shaley, 2016). Journaling has been found to be helpful for some individuals (Halter, 2018).

In addition to care of the patient and their family in this process, care of personnel and response teams needs to be part of the treatment process. Vicarious trauma leads to burnout, stress, inflammation, and PTSD over time. Because PTSD is complex and individual, it is essential to assess not only the patient but those who are caring for the patient. Structured interviews providing personal and staff debriefing, which is a group intervention, allows sharing of emotion, reviewing facts, and validating experience, which can reduce trauma from witnessing other's trauma (National Center for PTSD, 2019e). It gives everyone an opportunity to share feelings, whether they come from firsthand or vicarious situations. Debriefing also allows for learning how to cope and prepare for similar future experiences.

Table 1. Health care professional Approaches to Helping Survivors of Early Trauma

- Encourage survivors to tell their version of the story.
- Listen with compassion.
- Work on developing rapport and an emotional bond to reduce the sense of isolation.
- Expect extreme fear and anguish.
- Encourage the survivors to bring in support.
- Assess need for other support systems such as the Red Cross or crisis intervention.
- Encourage expression of painful emotions through words, art, or journaling.
- Assess for appropriate grieving responses.
- Interrupt continuous distress with encouragement to eat, rest, or sleep.
- Never leave the distressed survivor alone.
- Explain the symptoms and recovery processes.
- Allow for individual recovery styles.
- Assess support systems.
- Activate further community support such as groups, clergy, or friends and family.
- Educate the patient and family regarding when to seek more assistance.

Based on National Center for PTSD (2019c); National Center for PTSD (2019e); Shaley, A. Y. (2016); Halter, M. J. (2018)

Ongoing interventions

Continued support may be in the form of group support, counseling, and further assessment of the patient's ability to cope and heal. It is essential for healthcare professionals to be tolerant of strong surfacing emotions and help patients self-regulate and monitor their environment to reduce the sense of isolation (Shaley, 2016).

CBT (including processing therapy), medications (most commonly antidepressants such as selective serotonin reuptake inhibitors and selective norepinephrine reuptake inhibitors, and anxiolytics), eye movement desensitization and reprocessing (EMDR), prolonged exposure, and stress inoculation training are identified as evidence-based practice guidelines for patients with PTSD.

Cognitive processing therapy is a process of working through the trauma by sharing it verbally and in writing with a trained therapist. Thoughts and feelings around the experience are part of the therapy, and all attempts are made to keep the processing in a safe and therapeutic environment (National Center on PTSD, 2019e).

EMDR is a psychotherapy approach to trauma that has been practiced since the late 1980s. It integrates numerous other therapies including stress management, relaxation training, and CBT but has a unique approach adding in a series of horizontal eye movements while the patient is processing the trauma and disturbing memories. The left-to-right eye movements are a form of "bilateral stimulation" that may involve alternating sounds or tactile stimulation (Novo Navarro et al., 2016). Numerous controlled studies have shown this to be a powerful and evidence-based tool for the treatment of PTSD.

Prolonged exposure therapy helps avoidance of the trauma. Using active relaxation techniques to imagine facing the people, situations, or places associated with the trauma, the patient learns to avoid these less. The patient listens to a tape-recorded discussion of the imagined encounter, and this is thought to reduce intrusive memories. The patient is guided through the process by a trained psychologist, psychiatrist, or advanced practice health care professional.

Stress inoculation is a training program (group or individual) to teach patients how to assess, monitor, and address their stress management strategies. There is skill building that happens as stress management strategies are tried in practice and in homework. The patient leaves with skills for dealing with stress and preventing escalation of symptoms of PTSD.

Family therapy, group therapy, occupational therapy, and general counseling can all be added to the treatment protocols individualized for the patient with PTSD (National Center for PTSD, 2019e).

HOLISTIC CONSIDERATIONS

The neurobiology of trauma and its effect on immune functioning have been studied extensively in the field of psychoneuroimmunology. One connection of interest is the relationship between PTSD and the naturally occurring cannabinoid receptors in the brain. Shoshan and Akirav (2017) discussed the cannabinoid receptors, which, when activated, reduce anxiety. Individuals with PTSD have lower levels of naturally occurring neurotransmitter anandamide (the brain's self-made cannabinoid) than those who do not have PTSD. Those with PTSD who use marijuana experience reduction in anxiety and sleep disturbances and report increased coping abilities. As marijuana laws change to allow medical use of this fairly new treatment approach, it is expected that relief of PTSD will be more pronounced, and there will be fewer side effects compared with current pharmaceutical treatment approaches (Shoshan & Akirav, 2017). There is need for large-scale human clinical trials to examine the efficacy of marijuana use for PTSD treatment (Mizrachi Zer-Aviv et al., 2016). Understanding the use of complementary therapies and herbs is part of holistic understanding.

Case study 1

Sally Jones, a 26-year-old Asian American, was a refugee who moved to the United States when she was 7 years old because of war in her home country. Her family left behind extended family and settled in a caring community in the United States. She graduated from high school and completed a 2-year degree in legal assistance. She married, became pregnant, and arrives at the hospital in labor with her first baby. Jossie, her health care professional, performs an initial assessment that reveals Sally is 6-cm dilated and is dealing well with her contractions without sedation. Sally is pleased that things are going so smoothly because she really wanted to "do it herself." Her husband is also supportive and encouraging. He shared with Jossie that he is so proud of his wife and her family. He tells Jossie about their experiences with war and thinks the fact that they left their home country and family behind and started a whole new life here in the United States is impressive. He seems especially delighted that Sally obtained an education and is now going to be a mom – the mother of his child.

When Jossie checks on Sally several minutes later, she is 8-cm dilated, and a sudden fetal heart deceleration is detected. Jossie calls for help, and numerous health care professionals, respiratory therapists, and interns rush into Sally's room to assist. In the midst of preparing Sally for an immediate cesarean delivery, an intravenous (IV) pole catches on someone's laboratory coat and crashes to the ground. Sally, who had started to show signs of fear but was able to provide informed consent for the immediate cesarean delivery, begins to scream and tremble uncontrollably. She covers her face with the pillow and kicks at the health care professionals.

Questions

1. Which factors may be contributing to Sally's intense reaction? What other factors that might have been better controlled contributed to Sally's response?
2. What is Jossie's action in helping Sally and her spouse regain calm and focus on the immediate cesarean delivery?
3. What other healthcare professionals should be involved in this family's postpartum care?

Discussion

1. Sally's refugee status and early, traumatic experiences with war are likely contributing to Sally's intense reaction to the situation. Because being in labor is a stressful time, even when things are going well, it is reasonable to assume that Sally was stressed. Despite the fact that she was pleased with the way her labor was progressing, Sally was most likely experiencing stress from preparing for the birth of her first child. Once it was determined that something wrong was happening that could potentially affect the health of the baby, the stress became a negative factor and escalated. Hearing the IV pole drop to the ground could have been far too similar to some of the sounds Sally heard as a child. The combination of the stress and worry about the health of her unborn child coupled with the loud noise, similar to a gunshot, appears to have taken Sally back, mentally, to times of her childhood and caused her behavior to regress. Because of her history, Sally would have benefited from a calmer and quieter approach. Having fewer staff at a time in the room would cause less commotion and confusion, decreasing the likelihood that something like the pole falling would happen. Keeping Sally completely informed as to what is going on in her room will also help create a less traumatic situation. Something as simple as saying, "What a loud noise! The IV pole just fell on the floor" lets Sally know what has just caused the loud noise and does not give her a chance to misinterpret it.

2. Jossie can help Sally and her husband to regain the positive anticipation they were feeling by updating them each step of the way as to what is happening. Depending on how much time she has, Jossie might even attempt to make the connection between the noise of the IV pole and things Sally heard as a child by facilitating a reflective discussion with Sally.
3. Assuming the cesarean section successfully delivered a live and healthy baby girl, Sally's plan of care should include the usual preparations for sending a new mother home. In addition, Sally would benefit from some counseling directed at her possible PTSD. Her husband would also benefit from counseling in the form of gaining more of an appreciation of what Sally went through as a child. Although he is proud of her, his focus may be on the "glamour" of her past, not necessarily the reality. It is probable that with appropriate support and education, Sally and her husband can function effectively as new parents and enjoy their new baby girl.

Self-Assessment Quiz Question #1

The health care professional conducting Sally's assessment should:

a. Ask if she has a history of trauma.
b. Explain that having a baby is a big event, and Sally can expect it to trigger past trauma.
c. Avoid sensitive subjects like trauma.
d. Leave trauma assessment for the psychiatric team.

Self-Assessment Quiz Question #2

The relationship between the couple:

a. Is in jeopardy.
b. Is not of relevance to this family's health care professional.
c. Should be part of the assessment and discussed openly in treatment.
d. Does not influence healing.

Evidence-based practice! EMDR therapy is recognized as an effective treatment for experiential trauma, including PTSD. The general goals of the model are to help the patient learn from past traumatic experiences, desensitize distress triggers, and plan for constructive future action. The approach is a hybrid, with elements common to psychodynamic and cognitive behavioral therapies, among others (Shapiro, 2017). The basic process consists of the patient focusing on a traumatic memory while simultaneously moving the eyes back and forth, following the therapist's finger (Cuijpers et al., 2020). Although the mechanism by which eye movement contributes to the process is the subject of debate, empirical studies show that procedures using the eye movement component are more effective than equivalent procedures without the component (Lee & Cuijpers, 2013).

The formal procedure includes the patient recalling a distressing image then associating the image with positive cognitions and emotions. Desensitization, and linking the image with positive thoughts, follows in the next phase. A body scan and guided imagery are commonly used at the close of the session to remove any lingering disturbance. A debriefing and follow-up round out the process (Shapiro, 2017).

EMDR is a widely recommended integrative treatment method for PTSD and is also effective with dissociative disorders (Shapiro & Brown, 2019). A recent meta-analysis of randomized control trials of EMDR found significant results for PTSD patients, with the caveats that the

Case study 2

Max is an African American 37-year-old man who served in Iraq in 2004 and 2005. Since returning, he is plagued with nightmares and flashbacks triggered when he goes into loud places, and he has been reporting negative emotions, low self-esteem, and general feelings of detachment from his work and his family. His marriage and his job are threatened, because he becomes unable to complete tasks and often displays waves of anger with the fear associated with flashbacks.

Self-Assessment Quiz Question #3

Assessment of the patient should include evaluating all except:

a. How often he is bothered by flashbacks.
b. His level of fear.
c. Physical reactions to the experience of re-experiencing.
d. The time he goes to bed.

Self-Assessment Quiz Question #4

Max begins to cry during assessment. The health care professional should:

a. Ask him if he would like to wash his face to help stop crying.
b. Sit quietly beside him as he gathers himself.
c. Leave the room to allow him some space.
d. Call his wife into the room to comfort him.

Self-Assessment Quiz Question #5

Treatment plan includes medication, counselling, and referral for eye movement desensitization and reprocessing (EMDR). When teaching Max about EMDR, the health care professional should:

a. Discourage the use of this unproven intervention.
b. Explain that the patient will need to take higher doses of medication before the treatment to reduce anxiety.
c. Explain that the technique will have him focus on the trauma in a safe environment.
d. Explain that this technique focuses on distracting him from thinking about the trauma.

Self-Assessment Quiz Question #6

Who of the following is at highest risk for posttraumatic stress disorder?

a. A 16-year-old girl with a history of asthma who just broke up with her boyfriend
b. A 22-year-old college student who just failed a course.
c. A 20-year-old college student who was date-raped.
d. A 78-year-old who just lost his wife to heart disease.

Conclusion

During traumatic events, a person's numerous neurochemical and rapid physiological responses occur. Many patients will present with symptoms of ASD, and many will present with other symptoms, with PTSD becoming evident in later life. The links of trauma to immune dysfunction and resultant diseases, such as cardiovascular disease, rheumatoid arthritis, fibromyalgia, and many others, call attention once again to the connection between the mind and body.

Glossary of terms

Acute stress disorder (ASD) is a reaction to trauma that begins immediately after the event and lasts from 3 days to 1 month. For those diagnosed with ASD, there is a sense of numbing, unreality, distress, hyperreactivity, and reliving of the event. There may also be sleep disturbances, angry or aggressive behavior, avoidance of talking of or thinking about the event, restlessness, exaggerated startle response, and memory distortion related to the trauma.

Dissociation is an unconscious protective defense mechanism that helps coping through emotional separation from the trauma and is accompanied by fragmented memories, feelings of detachment from the world, and disturbances of self-identify and perceptions.

Hypervigilance is an enhanced state of awareness and fearful observation of the environment accompanied by jitteriness and an exaggerated startle response.

Intrusive thoughts are involuntary, recurrent, and distressing memories triggered by internal or external reminders of trauma and are often called flashbacks. Because of their accompanying high level of stress and sudden occurrence, they interfere with daily life and work.

Posttraumatic stress disorder (PTSD) is a stress-related disorder characterized by reoccurring and persistent sequelae of trauma that include reexperiencing the emotions accompanied by a sense of fear and helplessness. This happens later in time than an acute stress disorder.

Resilience is a positive characteristic of mental health that facilitates adaptation to stress, challenges, and trauma using intrinsic traits and external support to heal from the experience. Persevering through difficult times enhances resilience and coping for future stressors.

Stress is the physical and mental response to a challenge or stressor. A stressor is the challenge that is extrinsic or intrinsic and requires coping and adaptation.

Trauma-informed care is an institutional approach in healthcare recognizing that trauma is widespread and interferes with health on all levels. It educates healthcare practitioners to recognize the signs and symptoms of trauma in patients, their families, and colleagues; to respond with knowledge, policies, and practices to deal with trauma; and to help patients with safely resisting retraumatization to facilitate healing.

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MANAGEMENT OF PTSD FOR HEALTHCARE PROFESSIONALS

Self-Assessment Answers and Rationales

1. The correct answer is A.
Rationale: Patients will report their earlier trauma if asked, and often feel relieved to be prodded to talk about it. Understanding the history can help the health care professional.

2. The correct answer is C.
Rationale: The couple's relationship is pivotal to the current and future health and well-being of each of them as a couple and for their family. Their pasts are fraught with emotional trauma, especially for Sally. How Sally manages it and how her husband can support her are essential to explore in therapy. The goal for the therapist is to nurture the relationship through open discussion and facilitation.

3. The correct answer is D.
Rationale: Frequency, triggers, reactions, normal coping behaviors, and depth of the flashbacks are all relevant to assessing the experience.

4. The correct answer is B.
Rationale: People respond differently and should be allowed to cry. Leaving the room implies that the health care professional does not want to see Max cry. The health care professional sitting quietly gives him space to regroup and recognize it is ok to feel this emotion. His wife might be a comfort to him, but the health care professional should ask first.

5. The correct answer is C.
Rationale: : EMDR treatment is conducted under the care of a professional certified in this trauma procedure. There is good research to support its use and it is becoming more commonly used in acute and post trauma disorders. It is a process where an individual talks about and experiences the trauma in a safe and supportive environment and is able to look more objectively at the experience.

6. The correct answer is C.
Rationale: While all of these experiences can be traumatizing, rape for a 20-year-old is a large life event and involves loss of control, injury, and potential lifelong consequences.

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The box below must be checked for verification sheet to be processed.

☐ By checking this box and signing below, I hereby affirm that I have completed this educational activity, including the self-assessment.

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Signature

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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.	

	Opioids and Pain Management for New Jersey Nurses (Mandatory) 1 Contact Hour					**Common Outdoor-Related Issues 6 Contact Hours**					**Cultural Humility for Healthcare Professionals 3 Contact Hours**				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
2	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
3	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
4	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
5	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
6	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
7	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
8	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
9	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
10	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	Excellent	Good	Average	Below Average	Poor	Excellent	Good	Average	Below Average	Poor	Excellent	Good	Average	Below Average	Poor
11	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
12	How many total hours did it take you to complete this course? Please indicate the number of hours: _____														
13	Please provide any additional feedback on this course: _____														

SECTION III: General

Fill in the circle below numbers **0=Not likely at all, 5=Neutral and 10=Extremely likely**

How likely is it that you would recommend Elite to a friend or colleague?..... 0 1 2 3 4 5 6 7 8 9 10

○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

If your response is less than a 10, what about the course could we change to score a 10?_____

_____

List other topics that you would like to see provided: _____

❑I agree to allow Elite to use my comments. If you agree, please provide your name and title as you would like to see them to appear. _____

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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.	

	Emerging Infectious Diseases 6 Contact Hour					**Fundamentals of Mentorship 3 Contact Hours**					**Hospice and Palliative Care for Healthcare Professionals 5 Contact Hours**				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
2	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
3	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
4	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
5	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
6	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
7	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
8	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
9	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
10	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	Excellent	Good	Average	Below Average	Poor	Excellent	Good	Average	Below Average	Poor	Excellent	Good	Average	Below Average	Poor
11	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
12	How many total hours did it take you to complete this course? Please indicate the number of hours: _____														
13	Please provide any additional feedback on this course: _____														

SECTION III: General

Fill in the circle below numbers **0=Not likely at all, 5=Neutral and 10=Extremely likely**

How likely is it that you would recommend Elite to a friend or colleague?..... 0 1 2 3 4 5 6 7 8 9 10

If your response is less than a 10, what about the course could we change to score a 10?_____

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List other topics that you would like to see provided: _____

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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.	

	Managing Difficult Patients for Healthcare Professionals 5 Contact Hours						**Management of PTSD for Healthcare Professionals 1 Contact Hour**				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
2	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
3	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
4	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
5	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
6	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
7	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
8	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
9	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
10	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍
	Excellent	Good	Average	Below Average	Poor		Excellent	Good	Average	Below Average	Poor
11	❍	❍	❍	❍	❍		❍	❍	❍	❍	❍

12	How many total hours did it take you to complete this course? Please indicate the number of hours: _____
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○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○

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_____

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