FLORIDA

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WHAT'S INSIDE

Domestic Violence for Florida Nurses (Mandatory) 1

[2 contact hours]

This course, applicable to all nurses in the state of Florida, provides information about Florida specific laws related to domestic violence. The course discusses the concept of domestic violence and how to best care for patients who are at risk of, or who have been targets of, domestic violence, as well as the prevalence of domestic violence in both Florida and the US and the impact domestic violence has on patients and society.

THIS COURSE SATISFIES THE DOMESTIC VIOLENCE TRAINING REQUIREMENT

Florida Laws and Rules Governing Nursing Practice (Mandatory) 14

[2 contact hours]

The legislature in the state of Florida, under Title XXXII of the Florida Statutes, determines the laws and rules regulating nursing practice in the state. The purpose of their action is to protect the public and preserve the health, safety, and welfare of the people in the state. It is under Title XXXII that the primary laws that regulate the practice of nursing in Florida are detailed. This course explores these rules and laws as they are defined for registered nurses, licensed practical nurses, advanced practice registered nurses, autonomous advanced practice registered nurses, and unlicensed assistive personnel in Florida. The Florida Board of Nursing requires every licensed nurse to complete a two-contact-hour course on the laws and rules that govern the practice of nursing in Florida as part of each biennial renewal cycle. This course meets the Florida nursing law continuing education requirement for nursing relicensure.

THIS COURSE SATISFIES THE FLORIDA LAWS AND RULES TRAINING REQUIREMENT

Human Trafficking in Florida, 2nd Edition (Mandatory) 27

[2 contact hours]

Healthcare personnel are on the front lines of the fight against human trafficking. Nurses, physicians, physician assistants, and all healthcare personnel must be alert to the often-overlooked signs of trafficking in their patients. This course is designed to provide a sensitive overview of the issue of abuse in human trafficking and how it affects patients and their families. It also meets the requirements of the Florida State Board of Nursing for continuing education regarding human trafficking.

THIS COURSE SATISFIES THE HUMAN TRAFFICKING TRAINING REQUIREMENT

Preventing Medical Errors for Florida Nurses (Mandatory) 43

[2 contact hours]

The purpose of this course is to review the prevalence of common medication errors, why they may occur, and interventions to help decrease the risk of these errors occurring. Case studies are provided to show real-life scenarios that can occur in any healthcare environment. The course meets minimum mandated requirements for Florida nursing licensure.

THIS COURSE SATISFIES THE PREVENTION OF MEDICAL ERRORS TRAINING REQUIREMENT

Recognizing and Reporting Nurse Impairment in the Workplace for Florida Nurses (Mandatory) 55

[2 contact hours]

Healthcare professionals are at risk for substance use disorders and impairment. A nurse with a substance use disorder and impairment is a healthcare risk for safe patient care, as well as a personal healthcare risk. This mandatory Florida course describes the significance of the problem as well as the signs and symptoms of substance use disorders and impairment in nurses. Employer strategies to recognize and address the problem are provided. This course meets the Florida Board of Nursing mandatory continuing education requirement of a 2-hour course on recognizing impairment in the workplace, which must be completed by licensed nurses every other biennium.

THIS COURSE SATISFIES THE RECOGNIZING IMPAIRMENT IN THE WORKPLACE TRAINING REQUIREMENT

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Basic Psychiatric Concepts 68
[6 contact hours]
This course is designed for registered nurses, licensed practical/vocational nurses, and newly licensed registered nurses who desire a greater understanding of basic mental health concepts. A fundamental understanding of medical terminology, abbreviations, and nursing care is assumed.
SATISFIES GENERAL HOURS REQUIREMENT

Crisis Resource Management for Healthcare Professionals 93
[3 contact hours]
Understanding Crisis Resource Management (CRM) and utilization of the concepts within team emergent responses can improve patient outcomes. The course will outline CRM concepts and demonstrate the application within emergent situations in healthcare. CRM concepts discussed will include leadership and followership, role identity and clarity; effective communication strategies; situational awareness; resource allocation; and dynamic decision making. Physicians, advanced practice providers, nurses, respiratory therapists, pharmacists, and other health team members should understand CRM to improve their performance in emergent team responses and ultimately improve patient outcomes. CRM framework is also applicable in medical and environmental emergent situations where teams work together to ensure patient safety.
SATISFIES GENERAL HOURS REQUIREMENT

Management of Atrial Fibrillation (AF) for Nurses 108
[1 contact hour]
Atrial fibrillation is a common healthcare problem. This course reviews the concepts of cardiac output, risk factors for atrial fibrillation (AF), classifications of AF, the pearls of obtaining a history and physical of a patient with AF, diagnostic testing, and the overall implications for pharmacologic management. Prescribing guidelines will be presented in subsequent courses. Nursing considerations and evidence-based practice guidelines are included in this course.
SATISFIES GENERAL HOURS REQUIREMENT

Nursing Assessment, Management and Treatment of Autoimmune Diseases 117
[6 contact hours]
Almost 4% of the world's population is affected by one of more than 80 different autoimmune diseases. In the United States (US), as many as 50 million Americans are living with an autoimmune disease, at a cost of $86 billion a year (National Stem Cell Foundation [NSCF], 2021). This education program provides information on autoimmune diseases with the purpose of adding to the nurse's ability to recognize, assess, and facilitate treatment of such diseases.
SATISFIES GENERAL HOURS REQUIREMENT

Final Examination Answer Sheet 145

FREQUENTLY ASKED QUESTIONS

What are the requirements for license renewal?

Licenses Expire	Contact Hours	Mandatory Subjects
April 30, 2023	24 + 2 hours of Domestic Violence (All hours are allowed through home-study) (First time licensees require 27 hours)	2 hours - Prevention of Medical Errors every renewal/biennium 2 hours - Florida Laws and Rules every renewal/biennium 2 hours - Recognizing Impairment in the Workplace every other renewal/biennium 2 hours - Human Trafficking every renewal/biennium 2 hours - Domestic Violence every third biennium 1 hour of HIV/AIDS is a one-time requirement prior to the first renewal

How much will it cost?

If you are only completing individual courses in this book, use the code that corresponds to the course when completing online.

COURSE TITLE	HOURS	PRICE	COURSE CODE
Domestic Violence for Florida Nurses (Mandatory)	2	$20.95	ANCCFL02DV22
Florida Laws and Rules Governing Nursing Practice (Mandatory)	2	$20.95	ANCCFL02RG
Human Trafficking in Florida, 2nd Edition (Mandatory)	2	$20.95	ANCCFL02FT
Preventing Medical Errors for Florida Nurses (Mandatory)	2	$20.95	ANCCFL02PF
Recognizing and Reporting Nurse Impairment in the Workplace for Florida Nurses (Mandatory)	2	$20.95	ANCCFL02NI
Basic Psychiatric Concepts	6	$35.95	ANCCFL06PC
Crisis Resource Management for Healthcare Professionals	3	$23.95	ANCCFL03CR
Management of Atrial Fibrillation (AF) for Nurses	1	$12.95	ANCCFL01AF
Nursing Assessment, Management and Treatment of Autoimmune Diseases	6	$35.95	ANCCFL06AD
Best Value - Save $180.60 - All 26 Hours	**26**	**$32.95**	**ANCCFL2623B**

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

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Yes, the Florida Board of Nursing uses CE Broker to track and verify your compliance. We report your hours electronically to the Board through CE Broker within one business day. Remember, do not forward your CE documentation to the board, keep your certificate in a safe place for your records.

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

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

Is my information secure?

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

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Important information for licensees:

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

Licensing board contact information:

Florida Board of Nursing
4052 Bald Cypress Way, Bin C-02 | Tallahassee, FL 32399-3252 | Phone (850) 245-4125 | Fax (850) 617-6460
Website: https://floridasnursing.gov/

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Please read these instructions before proceeding.

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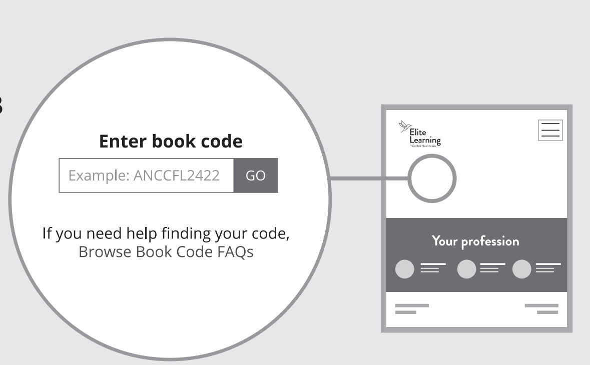
- Follow the online instructions to complete your final exam. Once you finish your purchase, you'll receive access to your completion certificate.



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Human Trafficking in Florida, 2nd Edition (Mandatory)	ANCCFL02FT
Preventing Medical Errors for Florida Nurses (Mandatory)	ANCCFL02PF
Recognizing and Reporting Nurse Impairment in the Workplace for Florida Nurses (Mandatory)	ANCCFL02NI
Basic Psychiatric Concepts	ANCCFL06PC
Crisis Resource Management for Healthcare Professionals	ANCCFL03CR
Management of Atrial Fibrillation (AF) for Nurses	ANCCFL01AF
Nursing Assessment, Management and Treatment of Autoimmune Diseases	ANCCFL06AD

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- All completions will be processed within 2 business days of receipt and certificates e-mailed to the address provided.
- Submissions without a valid e-mail will be mailed to the address provided.

Domestic Violence for Florida Nurses (Mandatory)

2 Contact Hours

Release Date: November 24, 2020

Expiration Date: November 24, 2023

Faculty

Marquetta Flaugher, Ph.D., ARNP-BC, is an advanced registered nurse practitioner who currently works at the Bay Pines VA Healthcare System in Bay Pines, Florida. She is an ANCC-certified family nurse practitioner and a psychiatric mental health nurse. She has given numerous presentations on domestic violence via publications and national presentations. She is a member of several professional nurse practitioner organizations. She teaches master's level leadership courses online at Southern New Hampshire University and online nurse practitioner courses at Chamberlain University.

Content reviewer

Margaret Hughes, MSN, RN, CPRNP-PC, is a Pediatric Nurse Practitioner who graduated from the Yale School of Nursing in 2016 with a concentration in Global Health. Her interest in healthcare started at a young age when she had several opportunities to shadow doctors in France and Belgium. She currently works in student health at a large university in Boston, MA. Previously, she worked at community-based and school-based health centers providing primary care to high-risk, medically under-served populations. She also has experience as a nurse and worked in a private pediatric clinic in Connecticut and at an overnight summer camp in New York.

Course overview

This course is intended to share information with all Florida nurses, so they know Florida laws related to domestic violence. This course is also presented so that nurses will better understand the concept of domestic violence and will know how to better care for patients who are at risk of, or who have been targets of, domestic violence. It also discusses the prevalence of domestic violence in Florida and the US, as well as the impact that domestic violence has on patients and society. Different forms of domestic violence and the sequela on selected populations' healthcare will be discussed. Also, national laws will be reviewed to enhance the reader's knowledge of the resources available and the legal issues encountered by domestic violence victims.

Learning objectives

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

- Review Florida's definition of domestic violence.
- Explain how the coronavirus can impact the sequela of domestic violence.
- Analyze the effects of domestic violence on specific populations.
- Discuss domestic violence mandatory licensure requirements for the state of Florida.
- Identify laws that impact domestic violence.

How to receive credit

- Read the entire course online or in print which requires a 2-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
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Activity director

Lisa Simani, MS, APRN, ACNP, Nurse Planner

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DOMESTIC VIOLENCE IN FLORIDA AND THE US

Trauma and abuse remain widespread occurrences in the United States (US). Domestic violence (also known as intimate partner violence – IPV) is devastating to families, the local community, and the nation. Domestic violence (DV) not only impacts the quality of life of the abused, but also impacts the lives of those around them. On average, "nearly 20 people per minute are physically abused by their intimate partner" (National Coalition Against Domestic Violence [NCADV], n.d., para. 1). Newer national statistics find that 22% to 25% of women in the US will experience domestic violence at some degree (Florida Department of Children and Families [DCF], 2019). In the US, it is estimated that 29% of women and 10% of men have been the "target" of domestic violence, whether physical violence or another form of violence (National Domestic Violence Hotline, n.d.).

In a review of Florida's 2018 statistics, "104,914 crimes of domestic violence were reported to Florida law enforcement agencies resulting in 64,573 arrests" (DCF, 2019). While the rate of domestic violence decreased by 43% from 1998 to 2018 in Florida, murders related to domestic violence in Florida increased 5% in 2018 (FDLE, 2018). This statistic equates to one person dying every 3 days from domestic violence in Florida (2019 Florida Statutes, 741.32). Services are essential for this population and have been assumed by the Florida DCF, which provides funding initiatives for the prevention and maintenance of state statistics.

Unfortunately, during the COVID-19 pandemic, murder rates are up 37% throughout the US (CBS News, 2020). During this pandemic, people are spending more time at home under increased stress. People worry about lack of employment and finances, fear of illness, and additional duties such as schooling children. The abuser may feel a lack of control over the situation and, thus, takes out their anger on their partner and/or children. If alcohol is being used to help relieve stress, this also can lead to abusive attacks or impaired reasoning and self-control. Although these rates of violence are staggering, one must wonder about the accuracy of these registers as under-reporting still exists.

The cost to society is enormous: it is estimated the cost was 9.3 billion in 2017 (McLean & Bocinski, 2017). While the rates of domestic violence in Florida may have decreased, the direct and indirect costs associated with services and care has increased, creating a societal burden and a need for additional resources and training.

Nursing consideration: During the COVID-19 pandemic, people are experiencing increased stress from quarantines, possible loss of income, and changes in work and home life, thus potentially increasing domestic violence due to the abuser feeling a lack of control.

FLORIDA'S DEFINITION OF DOMESTIC VIOLENCE

The state of Florida defines DV as "any assault, aggravated assault, battery, aggravated battery, sexual assault, sexual battery, stalking, aggravated stalking, kidnapping, false imprisonment, or any criminal offense resulting in physical injury or death of one family or household member by another family or household member" (The Florida Senate, 2018, Chapter 456). IPV is defined as "physical violence, sexual violence, stalking and psychological aggression (including coercive acts) by a current or former intimate partner" (CDC, 2017).

While both of these terms are often used interchangeably, the definitions can vary depending upon specific state terminology.

It is important to note that both definitions do not clearly embrace men as the individuals who are abused. In 2016, the National Institute for Health and Care Excellence (NICE) developed a definition of DV that was gender inclusive. Peate (2017) wrote that NICE in 2016 defined domestic violence as "any incident or pattern of incidents of controlling, coercive, or threatening behavior" by any family member or an intimate partner. This definition also contains terminology that includes psychological, physical, sexual, financial, and emotional abuse (Peate, 2017).

HISTORY OF DOMESTIC VIOLENCE

Domestic violence has been noted throughout history. In the past, women were seen as property and had no rights. In Mesopotamia during ancient times, the Code of Hammurabi, a Babylonian code of law dating from 1754 BC, provided provisions for disciplining females and children. It included such things as allowing a husband to execute his wife if she was caught cheating; he could drown her if she overspent monies or he could sell the children or force them into slavery to pay for his debts (Criminal Justice Report, n.d.).

In Greece, early laws allowed men to rule as they saw fit, which meant they could do anything to their wife. In early Rome, beatings were commonplace, and only upper-class women could request a divorce. It is written that Constantine the Great, who was later canonized as a saint in the Catholic Church, executed his wife by boiling her alive for the suspicion of adultery (Criminal Justice Report, n.d.).

The English law, "Rule of Thumb," limited domestic beatings: citizens could use a stick no larger in diameter than their thumb to perform the beating. In the early United States, the Constitution did not include women's rights. Women could not own property, vote, or have a say in the political arena. Religious views also contributed to domestic violence to women as people interpreted biblical commands literally, such as women obeying and submitting to their husbands.

During the early history of domestic violence, crimes were abundant and punishments were public. As we review our current history, will we see the prevalence rate for domestic violence, which has been documented as decreasing over the past few years, continue with the progress toward the cessation of violence?

"SOCIAL SLEEPINESS" TO DOMESTIC VIOLENCE

In today's world where violence is an unfortunate but common occurrence, it seems as if we are socially numb or "sleepy" to what is being heard or said. Violent occurrences are so common that we expect to hear about them on a daily basis. The act of hurting others no longer simply occurs inside a person's home, as workplace bullying and violence have also been identified. According to Cook & DePrince (2020), there is a link between mass shootings in the US and domestic violence. The authors stated the more violent the mass shooting, the more likely the shooter had a prior history associated with domestic violence. This finding is thought to be associated with increased social stressors and cultural gender views.

With various social medias bombarding us through music, television programs, and news reports, we have become accepting to violence and no longer feel "shocked." This author calls this "social sleepiness" where nothing is so alarming any longer as it is considered the "norm." We simply become "sleepy" and passive against these terrible violent behaviors (Flaugher, 2018).

Because of the "social sleepiness" of our nation, the focus among domestic violence care groups has been to call the person who is (or who was) abused a "survivor" instead of a "victim" to demonstrate empowerment. Hopefully, survivors will feel more empowered and violence of this type will cease.

Nursing consideration: Social media can play an important role in domestic violence, lending a voice to many people who are abused. Nurses need to be aware that what is being reported can influence a person's health.

RISK FACTORS FOR DOMESTIC VIOLENCE

In 2020, the CDC stated an average of 6.6 per 100,000 homicides occurred in Florida. With Florida's population increasing, this number is expected to also increase. Florida murder offenses in 2018 showed firearms were used 71% in the 1107 cases (CDC, 2020). To attempt to reduce these figures, healthcare providers need to understand the risk factors associated with domestic violence and related domestic violence homicide. These include the following:

- Unemployment.
- A substance abuse or mental health history.
- Prior stalking behavior.
- Access to a weapon.
- A criminal history with prior threats of homicide.
- Early dating with adolescents
- Early use of alcohol.
- Personality disorders such as antisocial personality disorder.
- Anger.
- Depression.
- Substance abuse.

Interestingly, if teens have an explosive disorder identified before the age of 20, they are commonly seen to exhibit violence and aggression with dating (Askin, 2015).

Case study 1

As a nurse you are asked to present information to a group of high school students on intimate partner violence. One female confides to you after the presentation that her boyfriend is "very jealous" of her.

Self-assessment quiz question #1

Understanding risk factors of IPV, what would be an appropriate question to ask this teen girl?

a. Do you enjoy your time with your boyfriend?
b. Does your boyfriend get angry or ask you not to see your other friends?
c. Why do you think he is jealous of you?
d. What do you do to help prevent his jealousy?

Self-assessment quiz question #2

The nurse understands risk factors for IPV include which of the following:

a. A person who starts dating late in life.
b. A person with multiple relationships.
c. A person who uses alcohol and marijuana.
d. An only child wanting to join peers for attention

Askin (2015) identified five reasons people abuse their partners:

1. Perpetrators may have poor coping skills. A person who is hurt may want to retaliate or "get even." The hurt person does not know how to cope with their own feelings, thus they hurt others.
2. Perpetrators may feel entitled. They do not feel they have the right to be hurt or embarrassed. If this is violated, they will hurt someone in response.
3. There may be a lack of empathy. Abusive people put themselves in their partner's shoes, but they don't necessarily do it with generosity.
4. There may be a lack of accountability. This is explained by the idea that society "accepts" violence, or it is considered acceptable to hurt someone "if they hurt us."
5. There may be unaddressed trauma. When people (especially children) witness abuse, they accept this as normal and do not know how to respond when hurt.

Most experts agree anger is NOT the reason why people are abusive. When police are called to a home for a report of domestic violence, the abuser can talk in normal tones without any form of physical violence. If anger was the culprit of domestic violence, then the emotion could not be so easily "turned off."

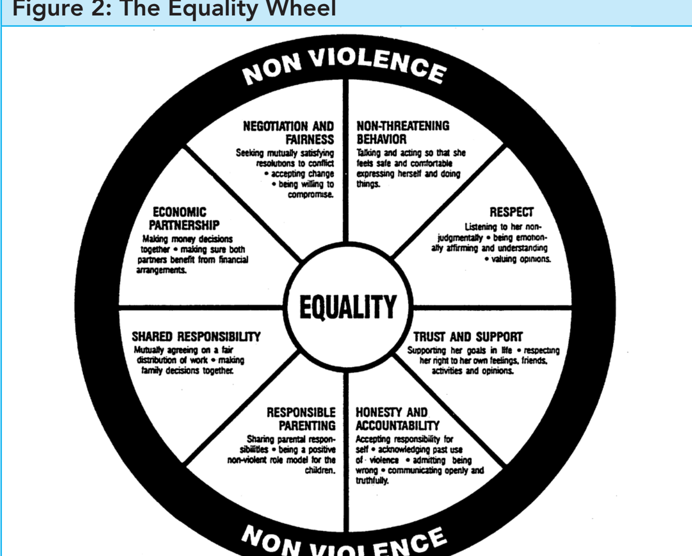
The Power and Control Wheel, developed by emergency room physicians, reveals ways people abuse, control, and dominate their partners (Domestic Abuse Intervention Programs, 2017). See Figure 1 below.

Figure 1: The Power and Control Wheel

VIOLENCE
physical
sexual
Coercion and Threats
Making threats via email, Instant and text messages. Sending disturbing information and website links. Posting false and hurtful information on blogs and websites.
Intimidating, Monitoring, and Stalking
Monitoring by using technology. Secretly changing files or device settings. Destroying technology items and/ or assistive devices. Impersonating you. Constantly contacting you.
Economic Abuse
Tracking or manipulating financial accounts online. Controlling and denying access to online accounts. Destroying your credit rating through Identity Theft.
Emotional Abuse
Ridiculing or putting you down using technology. Manipulating technology to confuse or scare you. Keeping you technology-dependent. Making you think you're crazy by misusing technology.
POWER AND CONTROL
Using Privilege & Oppression
Making all of the decisions about technology. Making you feel stupid and incapable of understanding or afraid of technology.
Isolation
Cutting off or limiting your technology use and access. Tracking and monitoring your whereabouts to prevent you from contacting others. Using technology to discredit you personally or professionally. Sending damaging or inappropriate emails, pretending to be you.
Using Others
Getting other people (children, friends, family, caregivers) to monitor and harass, install devices, and get information such as account numbers or passwords. Using websites to encourage strangers to harass you.
Minimizing, Denying, Blaming
Normalizing the control and abuse by saying the technology monitoring is for "your own safety." Shifting responsibility by saying you somehow installed the Spyware or other technology devices.
physical
sexual
VIOLENCE
© 2006, 2008 NNEDV Safety Net Project nnedv.org/safetynet
Based on Duluth's Domestic Abuse Intervention Project model.

Note. The Power and Control Wheel has been redeveloped to accentuate positive behaviors to help others recognize actions seen in a healthy relationship called the Equality Wheel. Adapted/Retrieved/Reprinted from "Wheels' Adapted from the Power and Control Wheel Model." National Center on Domestic and Sexual Violence, 2017 (http://www.ncdsv.org/publications_wheel.html)

Figure 2: The Equality Wheel



Note. Developed by: Domestic Abuse Intervention Project, 202 East Superior Street, Duluth, MN 558024612 Shoal Creek Blvd, Austin, Texas. Adapted/Retrieved/Reprinted from "Wheels' Adapted from the Power and Control Wheel Model," National Center on Domestic and Sexual Violence, 2017 (http://www.ncdsv.org/publications_wheel.html).

Nursing consideration: Awareness of risk factors for domestic violence can assist with early screening and implementation to promote the health of a person being abused.

TYPES OF DOMESTIC VIOLENCE

The following table displays the various types of domestic violence and examples of each (Domestic Abuse Intervention Programs, 2017):

Table 1: Behaviors demonstrating various forms of violence

Form of violence	Behaviors
Physical	Hitting, slapping, abandonment, forcing drug/alcohol use, preventing daily activities such as bathing, eating, or sleeping.
Sexual	Making derogatory remarks, forcing sexual acts, forcible rape, forcing someone to watch pornography, intentionally trying to infect someone with a sexually transmitted infection.
Emotional	Threatening, ridiculing, isolation, blaming someone for acts, constant surveillance, acting possessive.
Financial	Providing little or no monies to a person, taking work checks away from a person, preventing the partner from working, maxing out credit cards.
Reproductive coercion	Refusing use of contraceptives to prevent unwanted pregnancies, monitoring someone's menstrual cycles, forcing an abortion.
Digital abuse	Denying social media access, sending texts that are fearful or threatening, sending explicit photos to someone or demanding explicit photos in return, using technology to monitor a person.

Note. Retrieved from The Advocates for Human Rights (2018). Forms of Domestic Violence (http://www.stopvaw.org/forms_of_domestic_violence).

Case study 2

A health department nurse sees a young female who has been in several times over the past year with sexually transmitted infections (STIs). She is always accompanied by a male "companion" who stays with the female during her exam. Upon assessment, you notice a tattoo of a dollar sign ($) on her inner thigh. She is always quiet and lets the male caregiver give most of the history.

Self-assessment quiz question #3

As a nurse you should:

a. Try to get the patient alone and ask about the possibility of sexual exploitation.
b. Ask the patient if she needs additional education on ways to prevent transmission of STDs.
c. Ask the caregiver if he is having any STDs so he can be treated also if needed.
d. Ask the patient if she thinks of harming herself since she is being seen often in the clinic.

Evidence-based practice! Mumma et al. (2017) conducted a research study that screened 143 female emergency room patients aged 18 to 40 years and assessed their risk of human trafficking. They found that 20% to 35% of these women screened positive, including 10 who were identified as human trafficking victims. This study demonstrates the importance of a screening survey to help identify victims, so specific services can be offered.

Stalking

Stalking is legally defined as when a person travels "with the intent to kill, injure, harass, intimidate, or place under surveillance with intent to kill, injure, harass, or intimidate another person, and in the course of, or as a result of, such travel or presence engages in conduct" (NCADV, 2015). This action makes the observed person fear bodily harm or causes emotional distress. This may include any form of verbal or electronic communication (Legal Information Institute, 2013).

Florida defines stalking as an intentional, malicious, and repeated harassment directed at a specific person. It includes unwanted telephone calls or emails, unwanted gifts, and surveillance of someone without their knowledge and/or consent (Florida State Statute 784.048). Although stalking is a crime in all 50 US states, "less than 1/3 of states classify stalking as a felony if it is a first offense, leaving stalking victims without protections afforded to victims of other violent crimes" (NCADV, 2015).

State stalking statistics are difficult to ascertain because of the definition of the laws pertaining to stalking. Although Florida was the second state to enact a stalking law in the US, it is typically difficult to obtain the evidence to prosecute (Jarrett, 1997). Stalking has a high propensity for the development of physical violence and injury. For example, weapons are commonly found in stalking cases; additionally, these cases are closely related to homicides (Skiner, 2017).

When technology is used to harass someone, such as sending unwanted emails or pornography for example, this is classified as cyberstalking. Often cyberstalking involves "sextortion" (when private information is threatened to be released unless sexual demands are met). While difficult to track because of people using code names and multiple Internet sources, cyberstalking is punishable with fines and possible years in prison, especially if seen to be the cause of the death of the recipient (Federal Bureau of Investigation [FBI], 2018).

Case study 3

A patient tells you she is worried about something. You provide privacy and allow her to share her feelings. She confides to you that her ex-boyfriend has threatened to send nude photos of her to her new boss. She is unsure of what to do.

Self-assessment quiz question #4

You understand this type of threat is:

a. A form of human trafficking for sexual favors.
b. A form of cyberstalking and specifically sextortion.
c. A harmless threat to scare the victim.
d. A form of aggravated forced sexual domestic abuse.

Self-assessment quiz question #5

What can the nurse do in this situation to assist the patient?

a. Contact a local attorney and make an appointment for the patient.
b. Call the police department if the patient agrees or consents.
c. Contact the local domestic violence shelter for the patient.
d. Call the FBI as this is a felony and the boyfriend needs to be arrested.

HOW ABUSED WOMEN VIEW THEIR HEALTH

Leite et al. (2016) reported that when women are abused emotionally and/or physically, this creates a phenomenon where they view their health as weak or problematic. What do these findings mean for healthcare providers and our society? If a person perceives their health as poor, they typically think of themselves as weak, which will likely prevent them from leaving an abusive situation. More medical services, costing additional dollars to our healthcare system and resources, will be required. Additionally, misunderstood perceptions can be passed on to others (children) who wonder why the parent does not leave an abusive situation, thus increasing mental and physical suffering along with increasing costs associated with healthcare services.

What do these findings indicate for healthcare providers? Violence and abuse can lead to additional "psychological suffering and emotional impact" (Leite et al., 2016). These perceptions can predispose a person to additional co-morbidities that greatly impact health, such as anxiety, depression, PTSD, and other mood disorders. With these diagnoses and the perception of a weakened health status, women can place themselves at risk for misusing medications or attempting suicide.

Nursing consideration: Nurses need to understand how abused individuals view their health, as their perception can make successful interventions and follow up difficult.

PREVALENCE & EFFECTS OF DOMESTIC VIOLENCE ON CHILDREN

In 2018 the Children's Advocacy Center in Florida reported 34,000 children were neglected or abused annually (Florida Network of Children's Advocacy Center, n.d.). Of this number, 36% represented victims that were 0 to 6 years of age; 35% were abused sexually, and 27% were physically abused (Florida Network of Children's Advocacy Center, n.d.). It has also been documented that children who are exposed to violence suffer both physically and/or mentally, leading to detrimental effects as they grow older. Children may suffer emotionally when seeing someone they love being hurt (or possibly losing that person to homicide). Often, children who are exposed to violence suffer from academic problems, substance abuse issues, and other emotional and physical problems, including death. They may also have issues with developing meaningful relationships, as they do not understand (or have not been taught) love in a relationship (McTavish et al., 2016). McTavish et al. (2016) reported that while we know witnessing violence has harmful effects on children, even awareness of violence can lead to devastating effects on the child's physical and mental development.

Physical changes in the brain may also occur with child mistreatment. Bellis et al. (2017) reported that children who are exposed to violence may develop altered brain development. This includes the lack of finding pleasure in what would be considered pleasurable activities, and poor impulse control leading to acting out or antisocial behaviors. Neurological stressors – such as living in a violent, unstable home environment or being physically abused – can lead to the development of cognitive learning disabilities, thus affecting school performance. It has been suggested the hypothalamus-pituitary-adrenal axis during times of stress (both physical and emotional) can alter cortisol release, affecting immunological systems. This may result in inflammatory processes and lead to development of cancer, diabetes, or early death.

Dargis and Koenigs (2017) explained that children who repeatedly witness physical violence are prone to be physically aggressive and this may lead to psychopathy. The authors conducted a study of 127 incarcerated males and investigated whether childhood exposure to violence leads to psychopathic traits in adulthood (Dargis and Koenig, 2017). The results indicated a strong association between exposure in childhood and psychopathic traits (Dargis and Koenig, 2017).

Unfortunately, children who are exposed to the homicide of one of their caregivers suffer compounded mental anguish. Not only do they suffer from the loss of their caregiver, but they are often placed in foster care without understanding why, and they may feel acute uncertainty about their future during a legal investigation (Alisic et al., 2017). This might lead to depression, which can continue for years beyond into adulthood (Alisic et al., 2017).

Case study 4

A teacher contacts the school nurse with suspicions of child abuse to an 8-year-old boy in her classroom. He suddenly has started "acting out" and getting into a lot of fights with the other children. Before this school year, he had been an excellent student and was never in trouble. The school nurse observes the boy being dropped off at school by his uncle the next morning and notes that he pulls away when his uncle tries to kiss him goodbye. The boy runs into the school room and immediately starts fighting with one of the other boys.

Self-assessment quiz question #6

The school nurse suspects possible child abuse based on what signs?

a. The young boy talks constantly about how great his parents are to mask his disappointment.
b. The boy aims to please everyone by making the highest grades in the classroom.
c. Antisocial behavior is often seen in abused children and pulling away from a family member is suspicious.
d. The boy takes extra attention to care for the school hamster as he wants to show love which he is not getting at home.

Evidence-based practice! A retrospective study conducted by Bellis et al. (2017) found that the presence of a trusted adult in a child's abusive environment can lessen that child's engagement in health harming or mental health issues when they are an adult.

RECOGNITION OF CHILD ABUSE

The continued prevalence of child abuse mandates that clinicians must be familiar with characteristics associated with child abuse. Boos (2018) described common signs and symptoms of abuse that may be seen upon assessment of children, including the following:

- Learning disabilities.
- Conduct disorders.
- Bruises of various ages.
- Human bite marks.
- Missing or fractured teeth.
- Cigarette burns or scalds from hot water.
- Fractures .
- Head trauma.

When assessing the social environment, consider the following risk factors, which may lead to child abuse (Boos et al., 2018):

- Unplanned pregnancy.
- Poverty status.
- Acute or chronic stressors in the home environment (such as loss of a job).
- Parents with low level education.
- Parents with a negative view of a child's normal developmental behaviors.
- Presence of substance abuse in home.
- Caregiver with history of abuse.
- Existence of animal cruelty.
- Presence of caregiver psychiatric illness.

Clinicians should always assess for the potential or real presence of child abuse and report any suspicions to the local authorities, per guidance of state laws.

Nursing consideration: Children are a vulnerable group. When suspicion of abuse is present, it MUST be reported, and suspicions must be documented in the health record.

PREVALENCE AND EFFECTS OF TEEN DATING VIOLENCE

Teen dating violence (TDV) is defined differently in various states, but can ultimately be described as a pattern of behavior that includes physical, emotional, verbal, or sexual abuse used by one person in an intimate relationship to exert power and control over another in the 12- to 18-year age group (McLean & Gonzales, 2017). The 2015 Youth Risk Behavior Survey found approximately 10% of high school students had been physically hurt while in a teen relationship with almost 11% suffering from sexual violence (Kahn et al., 2016). According to the 2019 National Youth Risk Behavior Surveillance, the prevalence rate for violence in US high school students who had dated in the past year was 8% with almost 16% reporting electronic bullying in the past year (Basile et al., 2020). When adolescents were followed over time, 30% of young adults ages 12 to 21 years in heterosexual relationships experienced psychological abuse; 20% experienced abuse if they participated in a same-sex relationship (NIJ, n.d.).

TDV is different from adult violence. Factors that distinguish TDV include young girls that usually are living at home, thus not dependent upon their partner for financial support and typically have no children. However, teens do experience poor coping and negotiating conflict and have the extra burden of being easily influenced by their peers.

When adolescents are involved in an abusive relationship and are not able to cope or have not developed necessary relationship skills, they are more likely to use "anger, physical aggression, and emotional abuse in conflicts" while staying in the current abusive relationship (Cutter-Wilson, 2011).

The short and long-term effects of teen violence abuse can result in major health issues. Tables 2 and 3 illustrate these results from Cutter-Wilson (2011).

Table 2: Short-term effects of abuse
1. Suicide.
2. Anxiety.
3. Depression.
4. Illegal drug use.
5. Unintended pregnancy.

Note. Adapted from Cutter-Wilson, E. and Richmond, T. (2011). Understanding TDV: Practical screening and intervention strategies for pediatric and adolescent healthcare providers. Current Opinion Pediatric, 24(4): 379-383. doi:10.1097/MOP.0b013e32834876d5.

Table3: Long-term effects of abuse
1. Decreased self-esteem.
2. Academic issues.
3. Eating disorders.
4. Mental health disorders.

Note. Adapted from Cutter-Wilson, E. and Richmond, T. (2011). Understanding teen dating violence: Practical screening and intervention strategies for pediatric and adolescent healthcare providers. Current Opinion Pediatric, 24(4): 379-383. doi:10.1097/MOP.0b013e32834876d5.

TDV is commonly associated with socioeconomic status and is more likely to occur in specific populations, such as those who participate in high-risk behaviors. Because of poor self-image and/or lack of control in managing difficult relationships, TDV is associated with risky health behaviors (substance abuse or unprotected sex) and, when coupled with poor self-image or coping mechanisms, can lead to unhealthy weight control, unwanted pregnancies, and antisocial behaviors – even legal ramifications and suicide.

Case study 5

The nurse practitioner has an 18-year-old patient who is being evaluated during a physical exam. During the interview, the teen admits to being sexually abused by her father.

Self-assessment quiz question #7

The nurse should keep in mind that which of the following is the greatest risk to this teen?

a. Suicidal tendencies.
b. Anxiety or mood disorders.
c. Academic issues that would prevent her getting into college.
d. Starting risky behaviors such as cigarette smoking to "cope" with the abuse.

Nursing consideration: Many disorders specific to teenagers can be effects of violence. All age groups (including teens) must be assessed on a routine basis for the risk of being abused or using non-coping mechanisms to deal with abuse.

SPECIAL POPULATIONS

Pregnancy

Abuse during pregnancy occurs in one out of six women (ACOG, 2020). Several risk factors make women more vulnerable to domestic violence during pregnancy. These risk factors include the following (ACOG, 2020):

- Prior history of violence.
- Low educational status.
- Living apart from the partner.
- Having a low income.
- Experiencing unintentional pregnancies.
- Lack of sleep.

Domestic violence is often triggered by stress. Pregnancy is a stressor for both partners and, unfortunately, while most women seek medical care during this time, abused women often miss routine follow-ups or may not start pregnancy care until they are in the third trimester. Because of the lack of prenatal care, babies may be born with their own set of healthcare issues. Often, pregnant women continue to use alcohol and tobacco products and have poor nutritional habits, which can lead to additional health concerns for the baby. The most alarming healthcare concerns during pregnancy of an abused female include suicide and homicide (ACOG, 2020).

Nursing consideration: Pregnancy is a time of stress for both partners, which can trigger domestic violence. Nurses must be aware of this possibility, especially in women who seek healthcare late in their pregnancies.

Mental health populations

As the World Report on Disability highlights per the Dammeyer and Chapman (2018) study, people with disabilities are at a greater risk of violence than those without disabilities. Because of aging populations and the increasing global burden of disease and injury, the prevalence of disability world-wide – now estimated at 15% of adults – is predicted to rise, further underlining the importance of more research on the experience of violence among people with disabilities (Dammeyer & Chapman, 2018).

When assessing mental health patients, the cause of the mental health disorder could be bi-directional. This means that a person with a mental health disorder is prone to domestic violence and, in some victims of domestic violence, mental health could develop as a result of the abuse. Depression, anxiety, aggression, and PTSD are symptoms commonly seen. Often barriers are present, including substance abuse, illiteracy, and poverty, which compound the problem of seeking solutions for this population. These barriers can be removed through training clinicians on proper assessment techniques and introducing the patient to motivational or support groups, fostering the growth of the cognitive and emotional skills necessary for a healthy relationship (Dammeyer & Chapman, 2018).

Evidence-based practice! It has been suggested by Brem et al. (2018) that costs exceeding over $19.3 million were attributed to the consequences of physical and mental health issues credited to violence. The authors reviewed research that supported antisocial personality disorder and alcohol abuse as leading factors to domestic violence.

Native American women

Violence against Native American women is one of the most prevalent healthcare concerns for today's society. Women living on reservations present unique barriers because of laws that govern territorial and jurisdictional rights. Another issue is the accuracy of reporting data, because it is neither gathered nor maintained by any federal organization or Indian agency.

Many factors, including repression, tribal laws, poverty, lack of medical or social support, and victims' lack of trust outside their community, lead to higher levels of alcohol abuse, suicide, and mental anguish. This is supported by a report that two-thirds of victims in the American Indian and Alaskan Native groups believe their attackers were drinking or on drugs before the abuse (Futures Without Violence, n.d.).

The abuse of Native American women is thought to be related to historical violence seen in this population. Oppression and domination leading to financial restraints may have led to adopted normalization of violence. In addition, poverty and substance abuse create environmental conditions that are stressful and may lead to further violence.

Social isolation is another issue for Native American women that makes it difficult for them to access needed resources to protect themselves. The isolation prevents many women from obtaining adequate medical care or other resources that are available to them. Tribal laws vary based on the location where the offenses occurred, the nature of the crime, which particular party was involved, and if the tribe resides in a PL–280 state (Futures Without Violence, n.d.) The Violence Against Women Reauthorization Act of 2013 (VAWA) included a section to assist Native American women by allowing tribal courts to prosecute non-Native American defendants accused of violence against Native American women (Potera, 2014). These laws are important in helping to protect Native American women, but additional support is required.

Men

Little research has been conducted investigating men as the abused victims in violent relationships (The National Domestic Violence Hotline, n.d.). Approximately 25% of men have experienced some form of contact with sexual violence, including rape, attempted rape, or sexual coercion (Smith et al., 2018). When men are abused, they often do not report the violence as they fear they will not be believed or feel they are the only one experiencing this type of control. Men often do not see the controlling behavior from their partner as abuse. Further, they may not believe their family members or intimate partners have committed a crime (Peate, 2017).

Men who are abused or stalked often see their medical provider for complaints of asthma, high blood pressure, headaches, chronic pain, insomnia, and limitations in their activity levels. Psychological effects of abuse have been difficult to describe as men typically do not report these to their healthcare provider (Peate, 2017).

Another issue faced by abused men is the lack of social support. Currently, there are limited educational programs developed for men and very few domestic shelters are set up specifically for male victims. Men who have been abused also state that when they call national hotlines, they are often stereotyped and referred to batterer programs instead of being supported as the victim. Another major concern are legal rulings that are usually against the male partner. This is because when men go to court to seek legal protection, the female sometimes lies and states she is the actual victim. Additional educational programs are needed for healthcare providers along with community resources that can meet the needs of this population. Legislation and funding are essential as this population is experiencing an increase in prevalence of abuse (Peate, 2018).

Case study 6

A nurse is talking to a 28-year-old male during his clinic visit. He shares he is in a same-sex relationship and often is abused by his partner. However, he does not want to report the abuse. After a conversation about ways the patient can protect himself, such as development of a safety plan, the patient thanks the nurse and goes home to his abusive partner.

Self-assessment quiz question #8

The nurse understands men are reluctant to report abuse primarily because:

a. Abused men see their relationship as "normal" for men.
b. Abused men are often stereotyped and referred to batterer programs.
c. Abused men do not want the legal expense to be deferred to their partner if they seek legal support.
d. Abused men fear other men will not have contact with them for future relationships.

Gender-related domestic violence

A new, more encompassing term, "gender and sexually diverse" (GSD), is starting to be used in the current literature instead of lesbian, gay, bisexual, or transgender (LGBT or LGBTQ) to describe these populations. Lorenzetti et al. conducted a study in 2017 to review risk factors associated with domestic violence in this population. Their conclusions yielded five interesting results (Lorenzetti et al., 2017):

1. Sexual stigma associated with same-sex relationships could lead to internalized stigma and self-contempt, which ultimately can lead to abuse for their partners.
2. Traditional roles, which are engrained in our society, make a person who is bisexual or transgendered feel they are a "mismatch" against the norm. This can result in bullying and/or violence toward transgendered and bisexual populations.
3. Social stigma and unacceptance of bisexual or transgendered preferences typically cause a lack of support from family, friends, and community. This can lead to suicidal thoughts (even in school-aged children).
4. Social norms and homophobic harassment can lead to isolation and social exclusion. Some may even be viewed as criminals, sinners, or ill, which can lead to human rights violations.
5. Safe and accessible resources are often limited for the GSD population, which may lead to further violence and/or death.

Elderly

More than 14% of individuals aged 70 or older have experienced some form of abuse in the past year (Rosay & Mulford, 2017). Because many elderly individuals make up the state's population, Florida is frequently referred to as a "retirement state." The 2018 US Census found the older population comprises 16% of the total population (US Census Bureau, 2020). Currently, Florida is estimated to have one of the highest percentages of older adults in the nation; this number is expected to increase 20% to 25% by the year 2030. "Elders who have been abused have a 300% higher risk of death when compared to those who have not been mistreated, as well as higher rates for hospitalization" (Ageless Alliance, 2017, para. 2). Unfortunately, because of unique barriers, less than 5% of actual elder abuse cases are reported (House of Representatives Staff Analysis, 2018). Religious, cultural, and financial reasons are all potential explanations of why the abused older person may remain in the home. Personal values or beliefs are specific to races and cultures; thus, some may not feel comfortable enough to discuss what is happening, especially since many elder abuse cases involve a family member or a caregiver. Generational values also influence an older person's reluctance to discuss abuse. This generation typically does not feel comfortable talking about private matters with strangers. This is compounded with fear that they may be removed from their home with subsequent placement in a nursing facility (WHO, 2020).

Another consideration that providers should be aware of when assessing the elderly for possible domestic violence includes health issues. The older population may suffer from dementia and cannot make their needs known or may suffer from depression. Many times, the abused elder loves their abuser, but they are unsure of how to end the violence, leading to depressive symptoms (Halphen & Dyer, 2018; Holt & Colburn, 2015).

Nursing consideration: Any person is at risk for domestic violence regardless of their social status, age, or geographical area.

Development of a safety plan

Many times, clinicians discuss safety issues with patients who have suffered from domestic violence and feel confused when the victim decides to return home instead of leaving the environment. Often, people need time to get items together (clothes, medications, legal and banking documents, etc.) before they can actually leave. For this reason, it is wise to discuss a safety plan with the individual so when they do decide to leave the abusive environment, it can be done without harm.

Safety plans should include access to a phone with 911 on speed dial. It should also include a plan to inform family and friends of the situation when possible (ensuring they do not share the information with the perpetrator). Additionally, the plan should include obtaining a bag of clothing, any necessary medications, copies of bank statements, and keys to have at a later date when retrieval of these items will be difficult. Nurses should instruct patients to notify the police, a domestic violence shelter, or a close friend if they feel they are in imminent danger. If children are in the home, make sure they know how to call 911 and give their full name to the authorities. Teach children "secret passwords" that alert them to the need to leave the home or immediate situation.

After individuals leave an abusive environment, they still need to remain alert for potential danger. When abused patients leave the abusive environment, they need to make sure others are aware of what is happening. They should also be cautious with technology. For example, using a public computer, changing passwords, changing phone numbers, and even having a technician check their mobile devices and computer for spyware programs are ways to protect themselves.

Evidence-based practice! The development of a safety plan helps ensure the person remains safe while in an abusive relationship or when trying to leave a violent relationship. Safety planning incorporates education, legal guidance, and support for the victim(s).

Legal efforts toward reducing the prevalence of domestic violence

Florida has continued its efforts toward decreasing domestic violence occurrences. It also refers batterers to an intervention program. Additionally, Florida continues to work nationally and has partnered with the National Domestic Violence Fatality Review and with Arizona's Child and Adolescent Survivor Initiative to identify funding and resources that can train advocates and mental health clinicians on how to better help children who have lost their caregivers to homicide or suicide.

Laws influencing domestic violence

In 1994, the Violence Against Women Act (VAWA) was created to support women who were abused and to bring about information to promote social awareness and enact needed changes. This law was reauthorized in 2013 (now called the Violence Against Women Reauthorization Act of 2013). While it continues to help women who are, or who have been, abused, it also has enhanced funding for additional services. The law allows for the following (Congressional Research Service, 2019):

- Free sexual assault exams.
- Protection orders for women and families.
- Prosecution and free legal services.
- Strengthens penalties for criminal activities.
- Sets up programs to meet the needs of immigrants or women of different races and ethnicities
- Provides services for teens and children.
- Affords protection for the abused who may have been evicted from their homes.
- Sex trafficking assistance.
- Gives tribal courts jurisdiction over crimes committed by non-Native perpetrators.

The Family Violence Prevention and Services Act (FVPSA) was created in 1984. This Act provides federal funding for domestic violence direct-service providers, including shelters and nonresidential facilities to enhance the quality of life for those suffering from abuse https://nnedv.org/content/family-violence-prevention-services-act/

The Victims of Crime Act (VOCA), established in 1984, was set up to assist those who suffered from violent crimes. The funds are obtained from donations, federal criminal fines, forfeited bonds, and special assessments. This money is then forwarded to individual states as grant money, which can be used to compensate victims of crimes (personal psychological counseling and or from lost employment), build additional shelters, or fund service providers (Office for Victims of Crime, 2013; http://www.ovc.gov/pubs/crimevictimsfundfs/index.html).

Healthcare clinicians must be knowledgeable about the laws and community resources available for their patients. Domestic violence will only end when everyone speaks up and gets actively involved.

Case study 7

A health department nurse is asked by a victim of sexual domestic violence how much a sexual assault exam costs as she has not been given any money by her abusive partner. The nurse understands financial dependence on the abuser often prevents the victim from being able to leave the relationship. The nurse reassures the patient the exam is free along with additional services that she may need.

Self-assessment quiz question #9

Which of the following is available to help cover the costs of sexual domestic violence exams?

a. Victims of Crime Act.
b. Department of Children and Families.
c. Department of Law Enforcement.
d. Violence Against Women Act.

Domestic violence legal proceedings in Florida

It can be an overwhelming task when an abused person seeks assistance from the legal system. The first action is to report the violence to the local law enforcement agency. Then, the victim must file for an injunction from the County Clerk's office. There are various injunction forms in the state of Florida, thus making it difficult for a layperson to know which form is appropriate. An attorney is recommended to assist in this endeavor; if that is not possible, however, the petitioner (the one seeking the injunction) can fill out the form by themselves. Although the County Clerk's staff is available to answer questions, they cannot provide legal advice or fill out the form for the petitioner.

There are a variety of injunctions that can be obtained in Florida to help protect the person when they feel that their life is in danger or they havebeen threatened. These are a few common injunctions that can be used in the state of Florida (www.flcourts.org):

1. Injunction of Protection: This is a court order (better known as a restraining order) that mandates the accused to have no contact with the petitioner in any manner – including

phone calls, text messaging, emails, or any other form of contact.
2. Sexual Violence Injunction: The respondent has committed one of the following acts:
   - Sexual battery.
   - Lewd behavior upon a child under the age of 16 years
   - Luring the child into a sexual act.
   - Requiring a child to perform sexually
   - Committing any forcible felony if a sexual act was committed or attempted.
3. Dependency with Children Injunction: The respondent must be related to the petitioner either by blood or by marriage. The respondent must also have lived with the petitioner, either in the past or present, as a family, or may have had a child with the person.
4. Dating Violence Injunction: The respondent must be a person that the petitioner has dated within the past 6 months, had a belief of affection or sexual involvement with, and was engaged on a routine basis during the relationship.
5. Repeat Violence Injunction: The respondent can be a neighbor, coworker, student, or relative who lives at another address (has never lived with the petitioner), a friend, or a roommate AND there were two incidents of violence OR two threats of violence.

If the individual is under 18 years of age, an adult will need to file the injunction for them. After the petitioner files the injunction, it is then sent to the judge for review.

The judge may then do the following:
- Issue a temporary injunction and set a court date for hearing.
- Deny the temporary injunction and set a court date for hearing, allowing the respondent to receive a copy of the injunction.
- Deny a temporary injunction and set a hearing date without providing the respondent a copy of the injunction.

After the petitioner files the injunction, they should keep a copy of this paper with them at all times. The risk of homicide is the greatest during times of separation. Therefore, if the respondent named in an injunction owns guns, these are removed from the person's possession until the outcome of the court proceedings are finalized, per Federal Law 18 US C. S922 (G) (8) – (9). Additional information about filing an injunction can be found at www.flcourts.org under "Family Law Forms," or by calling the Florida Domestic Hotline number at 1-800-500-1119.

Case study 8

A nurse is approached by a patient who in the past has admitted to being abused by her partner but has never left the abusive environment. Today, she says she is ready to leave her partner but he has threatened to take the children away from her and gain full custody unless she stays with him. The nurse understands there are many injunctions that can be obtained and discusses these with the patient.

Self-assessment quiz question #10

In this situation, the patient would most likely benefit from what type of injunction?

a. Temporary injunction allowing a court date to be scheduled.
b. Repeat violence injunction as the patient has been abused many times.
c. Dating violence injunction as the abuse is primarily sexual, physical abuse.
d. Dependency with children injunction which includes any birth children between them.

Mandated educational requirements

Continuing education requirements for licensure vary from state to state. Currently, Florida's rules for education on domestic violence and licensure (Florida Department of State, Florida Board of Nursing, 2019) are the following:
- A 2-hour course (one contact hour equals 60 minutes) for biennial renewal on or after January 1, 2019.
- A course on domestic violence every third biennium.
- A nurse's license by examination within a biennium does not need to take a domestic violence course during that time. This exemption includes nurses who were licensed in the original state of licensure.
- A nurse who was endorsed in Florida during a biennium will need to have one contact hour for each calendar month remaining in the biennium (however, no hours are required if the time remaining in the biennium is 6 months or less). This does not apply if the nurse's license was suspended, revoked, or becomes inactive at the end of the biennium.
- Any nurse who holds both a Licensed Practical Nurse (LPN) and a Registered Nurse (RN) license will satisfy educational requirements by meeting the RN guidelines.
- An Advance Practice Nurse Practitioner (APRN) who also has an RN license can satisfy the educational requirement for domestic violence by completing the requirements outlined for the RN. Or, the APRN may satisfy the educational requirement by taking up to 50% of continuing medical education comparable to the state mandated contact hours.

An RN who is the spouse of any military branch member and is absent from the state of Florida because of the spouse's duties is exempt from the educational requirement (The Florida Senate, 2018 Florida Statutes, Chapter 456). Clearly, the educational requirements can be confusing; therefore, nurses need to be familiar with the rules and regulations regarding their licensure and educational requirements for each state in which they are actively licensed.

Conclusion

Domestic violence is a national tragedy that has been ongoing for many years. It can be seen in any population and knows no age limits. While society tends to think only of the physical effects of domestic violence, there are many other forms that lead to abuse. Devastating physical and mental health consequences can occur as a sequalae of abuse. Nurses must be aware of the prevalence of this problem and feel comfortable enough to ask hard questions regarding domestic violence. Nurses also need to know about legislation and community resources available for their patients. Nurses often encounter domestic violence victims; thus, they must understand the ramifications of being abused and how they can best support and provide care to this special group. While it may be easy to become complacent because ofthe violence seen almost on a daily basis in today's world, nurses must be a voice for patients through education and legislative efforts to help end the cycle of domestic violence.

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DOMESTIC VIOLENCE FOR FLORIDA NURSES

Self-Assessment Answers and Rationales

1. The correct answer is B.
Rationale: Teens who abuse their partners often demonstrate antisocial behaviors including anger or hostility. They want power over their partner and try to limit their social or peer support.

2. The correct answer is C.
Rationale: Use and abuse of substances such as alcohol or illicit drugs can be a risk factor for IPV. These substances are often used during times of stress when the abuser may feel a loss of power and control.

3. The correct answer is A.
Rationale: When talking with a possible victim of human trafficking, they are often accompanied by their "owner" or abuser; thus the nurse should try to talk to the patient alone.

4. The correct answer is B.
Rationale: Understanding that many forms of abuse are present including cyberstalking. Cyberstalking is an electronic means to harm someone either by sending threats of physical violence or threatening to send nude photos or sexual items about the victim to their friends, family, work employers, etc.

5. The correct answer is B.
Rationale: When offering guidance on cyberstalking, the police should be notified if the patient agrees, as this is a legal concern and can lead to possible homicide. Various medications and pharmacokinetics do not influence healthcare disparity.

6. The correct answer is C.
Rationale: Antisocial personality and faltering grades are often seen in children who are being abused. This young boy also "pulled away" from his uncle, which can be suspicious for child abuse considering the other behavior displayed. Antisocial personality and faltering grades are often seen in children who are being abused.

7. The correct answer is A.
Rationale: When teens are being abused, they are at risk for suicide. Although all answers can be risk factors associated with being abused, suicide is the greatest risk.

8. The correct answer is B.
Rationale: There is a lack of resources available for men having sex with men. Often when they call domestic help hotline numbers, they are assumed to be the batterer and not the victim, thus they are referred to batterer programs.

9. The correct answer is D.
Rationale: The VAWA provides funding for many services, including sexual assault exams, protective orders, legal services, and other needed services for the victims of domestic violence.

10. The correct answer is D.
Rationale: The Dependency with Children Injunction describes an injunction that protects the petitioner who may have had a child with the person.

DOMESTIC VIOLENCE FOR FLORIDA NURSES

Final Examination Questions

Select the best answer for each question and mark your answers on the Final Examination Answer Sheet found on page 145 or complete your test online at **EliteLearning.com/Book**

1. During times of stress, domestic violence can be heightened. This is explained by:
   a. Too many people being together, creating additional tension.
   b. Ineffective relaxation methods being utilized.
   c. Worries about financial stressors and loss of control over the situation.
   d. Increased violence seen on television and other media.
2. Weapons of violence are best described as:
   a. Guns used to threaten and control a person.
   b. Knives used to threaten and harm a person.
   c. Glass used to threaten and harm a person.
   d. Anything perceived to harm and deform a person.
3. An example of sexual violence is:
   a. Preventing the partner from activities such as bathing.
   b. Maintaining surveillance on their partners.
   c. Making derogatory remarks and forcing the partner to view porn.
   d. Forcing the partner to use various drugs for relaxation.
4. Florida defines stalking as which of the following:
   a. Unwanted telephone calls.
   b. Unwanted gifts.
   c. Unwanted emails.
   d. All are correct.
5. The elderly often do not report domestic violence because of:
   a. Fear of dying alone.
   b. Financial constraints.
   c. Fear of not being believed.
   d. Fear of an extended court battle.
6. The Violence Against Women Reauthorization Act of 2013 allows for the following:
   a. Free sexual assault exams.
   b. Prosecution and free legal services.
   c. Strengthens penalties for criminal activities.
   d. All are correct.
7. In Florida, an injunction of protection prevents:
   a. Unwanted types of communication from the perpetrator.
   b. Unwanted sexual acts or advances from the perpetrator.
   c. A coworker from committing acts of violence against the petitioner.
   d. Someone you have dated anytime in the past from having contact with you.
8. Long-term effects of teen dating abuse include:
   a. Potential suicide.
   b. Depression.
   c. Illegal drug use.
   d. Eating disorders.
9. The Legislation that provides for free rape exams, establishes programs for different races and ethnicities of domestic violence, and helps those who have been evicted from their homes is known as:
   a. The Violence Against Women Reauthorization Act of 2013
   b. The Family Violence Prevention and Services Act.
   c. The Victims of Crime Act.
   d. Futures Without Violence Act.
10. Florida mandates a ___ domestic violence education course for biennial licensure renewal on or after January 2019.
    a. 1 hour.
    b. 2 hours.
    c. 3 hours.
    d. No additional training requirement after initial course.

Course Code: ANCCFL02DV22

Florida Laws and Rules Governing Nursing Practice (Mandatory)

2 Contact Hours

Release Date: June 21, 2022

Expiration Date: June 21, 2025

Faculty

June Thompson, DrPH, MSN, RN, FAEN has a long history of working in emergency care, injury prevention, and publishing. She holds a doctoral degree in public health with an emphasis in injury epidemiology and health services administration. Dr. Thompson has held academic positions at the Ohio State University, the University of Texas, and the University of New Mexico. She is currently living and working in Florida.

Reviewer

Maria Morales, MSN, RN, CLNC is a certified legal nurse consultant with a history of clinical, managerial, and executive nursing experience. Her clinical background includes critical care and perianesthesia nursing. Within the continuing education field, she has managed and directed nursing, medicine, pharmacy, and allied health educational programs and initiatives.

Course overview

The legislature in the state of Florida, under Title XXXII of the Florida Statutes, determines the laws and rules regulating nursing practice in the state. The purpose of their action is to protect the public and preserve the health, safety, and welfare of the people in the state. It is under Title XXXII that the primary laws that regulate the practice of nursing in Florida are detailed. This course explores these rules and laws as they are defined for registered nurses, licensed practical nurses, advanced practice registered nurses, autonomous advanced practice registered nurses, and unlicensed assistive personnel in Florida. The Florida Board of Nursing requires every licensed nurse to complete a two-contact-hour course on the laws and rules that govern the practice of nursing in Florida as part of each biennial renewal cycle. This course meets the Florida nursing law continuing education requirement for nursing re-licensure.

Learning objectives

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

- Identify two Florida statutes (laws) of Title XXXII that regulate the practice of nursing in Florida.
- Describe four levels of nursing licenses/practice in Florida and the general scope of practice of each.
- Identify at least four continuing education topics required for Florida nursing license renewal.
- Identify at least five grounds for disciplinary action noted in Rule 64B9-8.005 of the Florida Administrative Code.
- Describe at least four tasks that may not be delegated to unlicensed assistive personnel.
- Identify at least three recent Florida law changes that impact the practice of nursing.

How to receive credit

- Read the entire course online or in print which requires a 2-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- Provide required personal information and payment information.
- Complete the MANDATORY Self-Assessment and Course Evaluation.
- Print your Certificate of Completion.

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Activity director

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

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

The Florida Legislature has the authority to enact laws, also known as statutes, to protect the health, safety, and welfare of the public under the police powers of the state. Under this authority, the legislature passed the following laws under Title XXXII of the Florida Statutes (The Florida Senate, 2021), which are the primary laws used to regulate the practice of nursing in Florida:

- Chapter 456, Health Professions and Occupations: General Provisions. Chapter 464, Nursing.
- Part I: Nurse Practice Act.
- Part II: Certified Nursing Assistants.

The purpose of the Nurse Practice Act, as published by the Florida Senate (2021), is to ensure that every nurse meets minimum qualifications for safe practice and to prohibit nurses who may pose a danger to the public from practicing in Florida. It is the legislative intent that nurses who fall below minimum competency or who otherwise present a danger to the public shall be prohibited from practicing in this state.

The Florida Legislature also has the authority to establish boards to adopt administrative rules for implementing the laws (Health Professions and Occupations, 2021, §§456.001, 456.004). In Florida, as is common in all other states, the board of nursing (BON) has this responsibility. Rule 64B9 of the Florida Administrative Code sets forth the rules under which the Florida BON regulates nursing licensure, discipline, education, and rehabilitation to ensure that nurses are fit and competent to provide healthcare services to the people of Florida (Board of Nursing, 2019). Although the administrative rules under the Florida Administrative Code are regulations and are not laws, they carry the force of law, and the Florida BON has the authority to enforce them.

The Nurse Practice Act (2022) states that the BON must require continuing education as a condition for licensure renewal. Rule 64B9-5.002 of the Florida Administrative Code requires nurses to complete a 2-hour course in Florida laws and rules every 2 years (Florida Board of Nursing, 2022). This course is designed to fulfill mandatory continuing education requirements by exploring the current content of Chapters 456 and 464 of the Florida Statutes and Rule 64B9 of the Florida Administrative Code.

THE FLORIDA BOARD OF NURSING

The Florida BON is authorized to adopt rules and establish procedures for implementing the laws related to nursing practice in Florida (Health Professions and Occupations, 2021, §456.001). For example, during the pandemic, one new update impacting the practice of nursing is SB 312- Telehealth New Legislation Impacting Your Profession (Florida Board of Nursing, 2022).

This bill, which was effective July 1, 2022, authorizes telehealth providers to prescribe controlled substances listed in Schedule III, Schedule IV, and Schedule V of section 898.03 Florida Statues, without limitation. The bill also authorizes telehealth providers to prescribe controlled substances listed in Schedule II of section 898.03s, Florida Statues, when treating a psychiatric disorder, an inpatient case at a hospital, a patient receiving hospice services, or a resident of a nursing home facility. While the BON did not initiate the Bill, the Bill impacts nursing, so the BON has adopted rules that align with the practice of nursing.

Additional recent legislation (Florida Board of Nursing, 2021b) that impacts the practice of nursing in the state of Florida includes:

- **HB 241 – Parents Bill of Rights** – which states that a licensed provider cannot provide services, prescribe medicine, or perform any procedure without first obtaining written parental consent unless otherwise authorized by law.
- **SB 530 – Nonopioid Alternatives** – prescribing healthcare practitioners are required to provide information about nonopioid alternatives to patients. This may be electronic or print.
- **SB 262 – Dispensing Medicinal Drugs** – authorizes a 48-hour supply of drugs to be dispensed by a hospital that operates a Class II or Class III institutional pharmacy to any inpatient upon discharge or any patient discharged from an emergency department if the prescribing practitioner determines that the medicinal drug is warranted and community pharmacy services are not readily accessible to the patient.
- **SB 716 – Consent for Pelvic Examinatio**n – The bill amends section 456.51, Florida Statutes, relating to informed consent for pelvic examinations, by updating the definition of "pelvic exam" and outlining when additional exams may be conducted after providing initial written consent.
- **SB 1770 – Genetic Counseling** – this bill authorizes the new practice of a new licensed and regulated profession cited as the "Genetic Counseling Workforce Act."
- **SB 1934 – Health Care Practitioner Discipline** – identifies circumstances that may lead to suspension or disciplinary action of a healthcare practitioner's license, including those who enter a plea or are found guilty of specific crimes.

THE BOARD OF NURSING COMPOSITION AND FUNCTION

The BON has 13 members who serve for a term of 4 years: seven registered nurses, three licensed practical nurses, and three lay members. All members must be Florida residents and at least one member must be 60 years of age or older (Nurse Practice Act, 2022, §464.004).

Board meetings are held every other month and are open to the public. During these meetings, the board addresses disciplinary cases, application reviews, committee reports, rule discussions, and other actions (Florida Board of Nursing, n.d.a). The BON is a member of the National Council of State Boards of Nursing (NCSBN), which is a not-for-profit agency through which boards of nursing from all 50 states share their common interest in providing regulatory excellence for public health, safety, and welfare (Florida Board of Nursing, n.d.b).

The BON maintains a website that is a rich source of information for nurses and the public (https://floridasnursing.gov). In addition to resources and information about applying for, renewing, and verifying a license, nurses and the public may access links to state and national professional organizations and departments, Florida Statutes and Administrative Code, official notices, legislative updates, board meetings, publications about nursing, and a variety of other websites that are relevant to nursing. Nurses should visit the BON's website frequently to become familiar with and use the resources that are available. For example, nurses may access electronic publications such as A Nurse's Guide to the Use of Social Media by the NCSBN and The Florida Nursing Quarterly, the official publication of the Florida BON, which is used to highlight and inform nurses about important topics.

Self-Assessment Quiz Question #1

The primary purpose of the Florida Board of Nursing is to:

a. Adopt rules and establish procedures for implementing the laws related to nursing practice in Florida.
b. Monitor nurse conduct in the state of Florida.
c. Represent nurses in the state by advising and sitting on other health-related Boards and committees.
d. Ensure nurses practicing in the state of Florida have an active nursing license to practice.

NURSING LICENSURE

Section 464.003 of the Nurse Practice Act (2022) defines the levels of nursing practice in Florida and describes the general scope of practice at each level. Nurses must stay informed of the current laws and rules that regulate nursing practice as they change over time, and nurses are required to understand and practice within the limits of what nurses are legally permitted to do in the state. It is important to understand that, although the law defines nursing practice in the state of Florida, the law does not specifically list every function that a nurse is permitted to perform. Rather, the law requires all nurses to be accountable for making decisions based upon their educational preparation and experience in nursing.

REGISTERED NURSE (RN)

A registered nurse is defined as any person who is licensed in Florida or holds an active multistate license under Section 464.0095 of the Florida Statutes to practice professional nursing (Nurse Practice Act, 2022). The practice of professional nursing is further defined as the performance of acts that require substantial specialized knowledge, judgment, and nursing skill based upon applied principles of psychological, biological, physical, and social sciences. This includes, but is not limited to, the following (Nurse Practice Act, 2022, §464.003):

- Observation, assessment, nursing diagnosis, planning, intervention, and evaluation of care; health teaching and counseling of the ill, injured, or infirm; and the promotion of wellness, maintenance of health, and the prevention of illness in others.
- Administration of medications and treatments as prescribed or authorized by a duly licensed practitioner authorized by the laws of Florida to prescribe medications and treatments such as a physician or an advanced registered nurse practitioner.
- Supervision and teaching of other personnel in the theory and performance of any of the acts described above.

LICENSED PRACTICAL NURSE (LPN)

A licensed practical nurse is defined as any person who is licensed in Florida or holds an active multistate license under Section 464.0095 of the Florida Statutes (2021b) to practice practical nursing. The practice of practical nursing is further defined as the performance of selected acts under the direction of a registered nurse, a licensed physician, osteopathic physician, podiatric physician, or dentist. Actions performed by the licensed practical nurse include the administration of treatments and medications in the care of the ill, injured, or infirm, and promotion of wellness, maintenance of health, and

prevention of illness of others. A licensed practical nurse may also teach general principles of health and wellness to the public and to students other than nursing students (Nurse Practice Act, 2022, §464.003).

An LPN is prohibited from initiating or performing the following functions unless they are under the direct supervision of an RN or physician:

- Initiation of blood and blood products.
- Initiation or administration of cancer chemotherapy. Initiation of plasma expanders.
- Initiation or administration of investigational drugs. Mixing IV solution.
- IV pushes except heparin and saline flushes.

This rule does not prohibit an LPN from caring for a person who is receiving any of the above therapies (Florida Board of Nursing, 2022, r. 64B9- 12).

ADVANCED PRACTICE REGISTERED NURSE (APRN)

An advanced practice registered nurse is defined as any person who is licensed to practice professional nursing in Florida and is licensed in advanced nursing practice (Florida Statues, 2021). This includes certified registered nurse anesthetists, certified nurse midwives, certified nurse practitioners, clinical nurse specialists, and psychiatric nurses. National certification alone does not give a nurse authority to practice as an APRN; the nurse must also hold a professional nursing license in Florida that authorizes advanced practice nursing.

Advanced or specialized nursing practice, in addition to the practice of professional nursing, is further defined as the performance of advanced- level nursing acts that are approved and deemed by the BON to be appropriately performed by virtue of the nurse's specialized education, training, and experience. Advanced or specialized practice includes nursing diagnosis and treatment of alterations in health status, medical diagnosis and treatment, prescription, and operation as authorized by a written protocol that must be established between the nurse and their supervisory physician or dentist and maintained at all practice locations (Nurse Practice Act, 2022, §464.012[3]).

The APRN may perform the following general functions as established within the framework of the written protocol:

- Prescribe, dispense, administer, or order any drug.
- Initiate appropriate therapies for certain conditions.
- Perform additional functions as determined by rule.
- Order diagnostic tests and physical and occupational therapy.
- Order any medication for administration to a patient in specified facilities.

Section 464.012 of the Florida Statutes also sets forth additional functions of an advanced practice registered nurse that are specific to practice as a certified registered nurse anesthetist, certified nurse midwife, certified nurse practitioner, clinical nurse specialist, or psychiatric nurse (Nurse Practice Act, 2022, §464.012).

AUTONOMOUS PRACTICE FOR APRNS

Advanced practice registered nurses who are registered pursuant to Section 464.0123, F.S. of the Nurse Practice Act (2022) may engage in autonomous practice only in a manner that meets the General Standard of Practice. The General Standard of Practice shall be that standard of practice, care, skill, and treatment that, considering all relevant surrounding circumstances, is recognized as acceptable and appropriate by reasonably prudent, similarly situated, educated, and licensed Advanced Practice Registered Nurses.

The Board of Nursing has the authority to register an advanced practice registered nurse as an autonomous advanced practice registered nurse under Section 464.0123 if the applicant demonstrates that they:

- Hold an active, unencumbered license to practice advanced nursing under §464.012.
- Have not been subject to any disciplinary action as specified in §454.072 or §464.018 or any similar disciplinary action in another state or territory.
- Have completed at least 3,000 clinical practice hours within the 5 years before applying.
- Have completed within the past 5 years 3 graduate-level semester hours, or the equivalent, in differential diagnosis and 3 graduate-level semester hours, or the equivalent, in pharmacology.
- The board may provide additional registration requirements by rule.

There are other requirements such as being able to demonstrate fiscal responsibility, maintain professional liability insurance, and engage in autonomous practice only in primary care practice1, including family medicine, general pediatrics, and general internal medicine, as defined by board rule.

[1]As of February 2021, The Board's definition of Primary Care Practice includes physical and mental health promotion, assessment, evaluation, disease prevention, health maintenance, counseling, patient education, diagnosis, and treatment of acute and chronic illnesses, inclusive of behavioral and mental health conditions § **64B9-4.001**.

For certified nurse midwives, this includes engaging in autonomous practice in the performance of the acts listed in §. 464.012(4)(c). As autonomous advanced practice nurses, these individuals may admit patients to the hospital and manage their care independently if it is within their scope of practice. As time progresses, the board shall work with an APRN autonomous practice council to adopt rules and establish standards of practice for an advanced practice registered nurse registered under this section.

Advanced practice registered nurses who are registered pursuant to Section §. 464.0123, F.S., shall engage in autonomous practice only in a manner that meets the General Standard of Practice. The General Standard of Practice shall be that standard of practice, care, skill, and treatment that, considering all relevant surrounding circumstances, is recognized as acceptable and appropriate by reasonably prudent, similarly situated, educated, and licensed Advanced Practice Registered Nurses (Florida Board of Nursing, 2021a).

When engaging in autonomous practice, an advanced practice registered nurse registered under this section must provide information in writing to a new patient about their qualifications and the nature of autonomous practice before or during the initial patient encounter (464.0123 [7].

PRESCRIPTIVE AUTHORITY FOR APRNS

As of January 1, 2017, APRNs are authorized to prescribe, dispense, administer, or order any drug. However, an APRN may prescribe or dispense controlled substances as defined in Section 893.03 of the Florida Statutes only if they graduated from a master's or doctoral degree program in a clinical nursing specialty with training in specialized practitioner skills (Nurse Practice Act, 2022, §464.012).

Rule 64B9-4.016 of the Florida Administrative Code specifies that APRNs may only prescribe controlled substances consistent with their education, training, experience, and written protocol, and must always comply with all state and federal laws and

regulations that govern the prescribing and administration of controlled substances (Florida Board of Nursing, 2022). All APRNs must complete a minimum of 3 hours of approved continuing education every 2 years on the safe and effective prescribing of controlled substances, regardless of whether they intend to prescribe or dispense controlled substances in practice (Nurse Practice Act, 2022, §464.012).

CERTIFIED NURSING ASSISTANT (CNA)

Part II of Chapter 464 of the Florida Statutes (2021) defines a certified nursing assistant as a person who meets the qualifications established by the law and is certified by the Florida BON. Effective August 2021, Rule 64B9-15.0015 updated the standards of practice for the CNA (Florida Board of Nursing, 2021). These now include:

- Demonstrate basic skills in performance of authorized duties in Rule 64B9-15.002, F.A.C., that facilitate an optimal level of functioning for residents.
- Demonstrate the ability to identify psychosocial needs of residents based upon awareness of the resident's developmental age and specific processes.
- Demonstrate basic skills in the performance of care to cognitively-impaired residents, including Alzheimer's, dementia, delirium, developmental disabilities, mental illnesses, and other cognitive conditions.
- Record and report observations, actions, and information accurately and in a timely manner.
- Protect confidential information unless obligated by law to disclose such information.
- Demonstrate respect for the property of residents and facilities.
- Demonstrate an understanding of principles of disease-causing microorganisms and demonstrate infection control techniques for prevention of transmission of illness.
- Promote a clean, orderly, and safe environment.
- Demonstrate the ability to identify and implement safety and emergency procedures.
- Demonstrate knowledge of statutes and rules governing certified nursing assistants.

CNAs may perform other tasks after receiving additional training beyond those required for initial certification and upon validation of competence in that skill by a registered nurse (Nurse Practice Act, 2022).

Self-Assessment Quiz Question #2

An example of a primary difference between a registered nurse's authority in Florida and that of a practical nurse's authority is that the LPN may not:

a. Initiate an IV push pain medication.
b. Teach a diabetic patient about their disease.
c. Flush an IV line with saline.
d. Monitor a patient receiving blood.

REQUIREMENTS FOR PROFESSIONAL AND PRACTICAL NURSING LICENSURE

Any person who wishes to practice professional or practical nursing must apply to the Florida Department of Health for licensure. The applicant must submit an appropriate application and fee and submit to a criminal background check conducted by the Florida Department of Law Enforcement. The applicant must be in good physical and mental health, a recipient of a high school diploma or the equivalent, a graduate of a nursing program that is approved by the Florida BON, and able to communicate in the English language. An applicant may seek licensure by examination or endorsement (Nurse Practice Act, 2022, §464.008).

An applicant may seek licensure by endorsement if the applicant holds a valid license to practice professional or practical nursing in another state or territory of the United States so long as the requirements for licensure at the time were substantially equivalent to, or more stringent than, the Florida requirements at that time. The applicant must also meet the qualifications for licensure set forth in Section 464.008 of the Florida Statutes and have successfully completed an examination that is substantially equivalent to, or more stringent than, the examination given by the state of Florida, or the applicant has a history of actively practicing nursing in another state, jurisdiction, or United States territory for 2 of the 3 preceding years without disciplinary action against their license.

An applicant who is issued a license by endorsement must submit to a nationwide criminal background check through the Federal Bureau of Investigation and complete a board-approved Florida rules and laws course within the first 6 months of licensure (Nurse Practice Act, 2022, §464.009).

MULTISTATE LICENSURE UNDER THE NURSE LICENSURE COMPACT

The Nurse Licensure Compact (NLC) aims to advance public protection and access to care through recognition of one multistate license that is enforced at the state level but permits nurses to practice in all member states (NLC, n.d.a). The NLC sets minimum standards for licensure that all nurses must meet before obtaining a multistate license, but each state that adopts the NLC continues to maintain its individual standards, scope of practice, and disciplinary procedures (NLC, n.d.a). The original NLC model legislation of 1999 was superseded by the enhanced NLC (eNLC) model legislation in 2018 (NCSBN, n.d.a). As of May 2022, 39 states have enacted the eNLC (NCSBN, n.d.b). Ohio has announced an implementation start date of January 1, 2023. Pennsylvania and the Virgin Islands have passed legislation allowing for NLC but are currently awaiting implementation. The National Council of State Boards of Nursing maintains a current list of states that have implemented the NLC, which may be accessed at https://www.ncsbn.org/nurse-licensure-compact.htm

With multistate licensure, nurses from multiple states are easily able to respond and supply vital services in other NLC states. Primary care nurses, nurse case managers, transport nurses, school home health and hospice nurses, among many others, needed to routinely cross state boundaries to provide the public with access to nursing services, especially in states heavily impacted by the pandemic. Multistate licensure has facilitated this process.

In 2016, the Florida Legislature passed the NLC under Section 464.0095 of the Florida Statutes and recognized that uniformity of licensure requirements among states promotes public safety and health (Nurse Practice Act, 2022, §464.0095). Under Section 464.008 of the Florida Statutes, a nurse may apply to the BON to upgrade a single-state license to a multistate license if they reside in Florida, meet the Florida licensure requirements, and meet additional criteria for multistate licensure under Section 464.0095 (Nurse Practice Act, 2022).

According to Section 464.009 of the Florida Statutes, a single-state license authorizes a nurse to practice only within the state of Florida and does not include the privilege to practice in any other state, whereas a multistate license authorizes a nurse who is licensed in Florida to practice as a registered nurse or licensed practical/vocational nurse in another state that has also adopted the NLC under a multistate license privilege. When a nurse upgrades to a multistate license, the multistate license privilege is added to the existing single-state license. Section 464.009 of the Florida Statutes exempts a nurse from the requirements for licensure by endorsement if the nurse legally resides in another

compact state and holds an active multistate license that was issued in that state (Nurse Practice Act, 2022).

Under the NLC, a multistate license issued in the state of Florida will be deactivated once a nurse establishes legal residency in a new state. If the new state of residency is not a compact state, the Florida multistate license will convert to a single-state license. If the new state of residency is a compact state, a nurse is required to declare a new state of residency and apply for a multistate license in the new compact state. A nurse may practice on the Florida-issued multistate license only until a multistate license is issued in the new compact state of residency. Once the multistate license in the new compact state is issued, the Florida-issued multistate license will be inactivated (Nurse Practice Act, 2022,

§464.0095). Under Section 456.035 of the Florida Statutes, a licensee is solely responsible for notifying the Department of Health of their current mailing address and place of practice. Failure to do so may result in disciplinary action by the BON.

A nurse should not wait for a multistate license in a former home state to expire before applying for a multistate license in a new compact state. A nurse who moves to a new compact state should apply for a multistate license in the new state well before the move. A nurse may practice on the former multistate license only for a period determined by the laws and rules of the new compact state and there is no grace period (NCSBN, n.d.a.).

When a nurse practices in a compact state other than the state of legal residency, the nurse is held accountable to the nurse practice act of the state in which the patient is located or where the nurse is practicing. A nurse who practices in another state under a multistate licensure privilege is subject to the jurisdiction of the board of nursing, the courts, and the laws of the state in which patient care is provided. Any grounds for disciplinary action that arise in another compact state will be reported to the Florida BON through a coordinated licensure information system database. A compact state may revoke, suspend, or take other adverse action against a nurse's multistate licensure privilege to practice nursing in that state, but the Florida BON has sole authority to take adverse action against a multistate license issued in the state of Florida. If the Florida BON takes adverse action against a multistate license issued in Florida, the nurse's multistate licensure privilege to practice nursing in all other compact states will be deactivated while disciplinary orders are pending (Nurse Practice Act, 2018, §464.0095).

Self-Assessment Quiz Question #3

Susan, a registered nurse from central Florida, wants to also practice nursing in Mississippi. What type of license will she need?

a. A Florida license.
b. A travel nurse license.
c. A separate license from that state.
d. A multistate license.

LICENSURE AS AN ADVANCED PRACTICE REGISTERED NURSE (APRN)

Before legislative changes took effect in October 2018, advanced practice nurses in Florida were issued a single license that was a combination of licensure as an RN and certification as an APRN or clinical nurse specialist (CNS). Under current law, advanced practice nurses in Florida such as the CNS are now recognized as in advanced or specialized practice that meets the requirements for APRN licensure (Florida Board of Nursing, 2022; Nurse Practice Act, 2022, §464.012).

A nurse who is licensed as a professional nurse in Florida or holds an active multistate license to practice professional nursing according to the NLC may apply for an APRN license. A multistate license issued in another compact state does not include authority to practice as an APRN in Florida. According to Section 464.0095 of the Florida Statutes, the multistate licensure privilege applies only to the practice of registered or licensed practical nursing. A nurse with a multistate license who is authorized to practice as an advanced practice registered nurse in another compact state must apply for an individual APRN license in the state of Florida (Nurse Practice Act, 2022, §464.012).

TITLES AND ABBREVIATIONS

Unless authorized under Florida law to use a nursing title or abbreviation, a person is prohibited from practicing or advertising as a nurse, assuming the title or using an abbreviation of a nurse, or taking any action that would lead the public to believe that the person is authorized by law to practice as a nurse. A violation of this law is punishable as a first-degree misdemeanor under Florida criminal statutes (Nurse Practice Act, 2018, §464.015).

A person has the right to use the title registered nurse and abbreviation RN if they are licensed as a professional nurse in Florida or hold a multistate license, and the title licensed practical nurse and abbreviation LPN if licensed as a licensed practical nurse in Florida or hold a multistate license. A person who graduates from a prelicensure nursing education program may use the term graduate nurse and abbreviation GN or the term graduate practical nurse and the abbreviation GPN, pending the results of the first licensure examination for which they are eligible. This does not apply during the time that results are pending for subsequent attempts on the applicable licensure examination (Nurse Practice Act, 2018, §464.015).

Only those who hold a valid Florida license as an APRN within the applicable specialty may practice as and use the following titles and abbreviations (Nurse Practice Act, 2022, §464.015):

- Clinical nurse specialist and CNS.
- Certified registered nurse anesthetist, CRNA, and nurse anesthetist.
- Certified nurse midwife, CNM, and nurse midwife.
- Advanced practice registered nurse and APRN.

The following are specific exceptions to the restrictions on the use of nursing titles and abbreviations and performing nursing functions (Nurse Practice Act, 2022, §464.022):

- Care of the sick by family members or friends without compensation.
- Care given during an emergency.
- The practice of nursing students while enrolled in an RN program.
- Care given by a nurse licensed in another state while employed by the federal government or while employed by a person who is temporarily residing in Florida.
- Home hemodialysis treatments under certain conditions.

Another exception applies to nurses who are relocating to Florida and are currently licensed in another state or territory. This exception applies for 60 days after furnishing to the employer evidence of current licensure in another state and submitting the proper application and fees to the BON before employment. This period is extended to 120 days if the nurse or the nurse's spouse must relocate because of official military orders (Nurse Practice Act, 2022, §464.022).

Self-Assessment Quiz Question #4

Karl graduated from his registered nursing program and is scheduled to take the NCLEX. He was quickly hired in his local community hospital. HR is requesting that he complete paperwork for his name badge. What is the correct designation that should be placed behind his name?

a. SN for student nurse.
b. UAP for unlicensed assistive personnel.
c. GN for graduate nurse.
d. RN for registered nurse.

MAINTAINING LICENSURE

Nursing licenses issued by the state of Florida must be renewed every 2 years, known as a biennial renewal cycle (Nurse Practice Act, 2022,

§464.013). If a nurse holds an RN license and an APRN license, each license must be maintained and renewed separately. If a nurse is practicing in Florida under a multistate license privilege from another compact state, they are not required to pay any fees or complete any continuing education requirements for the state of Florida. However, the nurse must comply with all nursing laws and regulations of their home state to ensure that the multistate license privilege has not been deactivated, thereby prohibiting the practice of nursing in Florida.

A Florida licensee may access the Department of Health's online licensing services 24 hours a day by logging in to their MQA Online Services Portal account at http://www.flhealthsource.gov, which allows the licensee to perform various functions such as updating their profile, renewing a license, or changing an address. However, a name change requires supporting documentation such as a state-issued marriage license, divorce decree, or court order, which must be mailed directly to the Department of Health (Florida Board of Nursing, n.d.c). Nurses are solely responsible for notifying the Department of Health in writing of their current mailing address and place of practice, and a licensee may be disciplined for not doing so. The Department of Health or the BON may mail official communications to the licensee's last known address, which is considered sufficient notice for most purposes (Health Professions and Occupations, 2021, §456.035).

RENEWAL

At the time of license renewal, a nurse may choose active, inactive, or retired status. To maintain an active license, the nurse must complete a renewal application, comply with all continuing education requirements, and pay the required fee before the license expires. If the nurse does not renew the license before it expires, the license becomes delinquent in the biennial renewal cycle that follows the expiration of the license. If the nurse does not renew the license during the cycle in which the license is delinquent, the license becomes null, and the nurse must apply for and meet all the requirements for a new license to obtain active licensure (Health Professions and Occupations, 2021, §456.036). The Department of Health may refuse to issue a license to anyone who has been convicted of or entered a plea of guilty or no contest to certain criminal offenses (Health Professions and Occupations, 2021, §456.0635).

A nurse may practice only if they have an active license (Health Professions and Occupations, 2021, §456.036). A nurse who practices with an inactive, retired, or delinquent license is subject to discipline. If a nurse with an inactive or retired status chooses to reactivate their license, the BON may require an examination or special conditions to ensure the nurse can practice with sufficient care and skill to protect the health, safety, and welfare of the public (Health Professions and Occupations, 2021, §456.036).

CONTINUING EDUCATION

Healthcare is continually changing and the public has a right to expect that nurses will demonstrate competence to practice throughout their careers (American Nurses Association, 2021). Although there are laws and rules governing the practice of nursing in Florida that are aimed at protecting the public, ensuring continued competence is a responsibility that is shared by nurses and regulatory agencies such as the BON, as well as other key stakeholders (American Nurses Association, 2021). Regulatory agencies generally define minimal standards for maintaining competence and each nurse must remain individually responsible and accountable for making sure that they are competent to provide nursing care safely (American Nurses Association, 2021).

REQUIREMENTS

Section 464.013 of the Florida Statutes requires all nurses to complete continuing education as a condition for renewal of a license or certification (Nurse Practice Act, 2022, §464.013). According to Rule 64B9-5.001 of the Florida Administrative Code, appropriate continuing education is defined as planned offerings that are designed to enhance learning and promote the continued development of knowledge, skills, and attitudes consistent with contemporary standards for nursing practice (Florida Board of Nursing, 2022).

In Florida, all nurses are in a 24-month licensure renewal cycle and must earn 1 contact hour for each calendar month of the biennial (2-year) renewal cycle, or 24 contact hours for each license renewal period. One contact hour equals 60 minutes. Nurses may receive credit only for time that they attend a Board-approved educational offering. The advanced practice registered nurse must complete at least 10 hours of continuing education approved by the board in addition to completing the required hours of continuing education requirements established by board rule pursuant to s. 464.013, regardless of whether the registrant is otherwise required to complete this requirement (§ 464.0123 [5] [b]). In addition, the autonomous APRN must complete an additional 10 hours approved at the graduate level (§ 64B9-4.020[4]).

Table 1 (Continuing Education Requirements)

Content	Contact hours	RN	LPN	APRN	Autonomous APRN
General Hours	16	✓	✓	✓	✓
Additional approved courses	10				✓
Prevention of medical errors	2	✓	✓	✓	✓
Florida laws and rules	2	✓	✓	✓	✓
Recognition of impairment in the workplace	2	✓	✓	✓	✓
Human trafficking	2	✓	✓	✓	✓
Domestic violence (**then due every 3rd renewal)	2	✓	✓	✓	✓
HIV/AIDS (**1 time requirement)	1	✓	✓	✓	✓
Safe and effective prescription of controlled substances	3			✓	✓

Florida Board of Nursing (2022)
** First biennium renewal
*** Rule 64B9-4.020(4), FAC, requires that registered Autonomous APRNs complete 10 additional hours of approved courses at the graduate level (Nurse Practitioner or continuing medical education).

The following education courses are a mandatory part of the total required hours (Board of Nursing, 2019, r. 64B9-5; Nurse Practice Act, 2022, §464.013):

- A total of 16 hours of general continuing education.
- A 2-hour course in prevention of medical errors every renewal cycle (every 2 years).
- A 1-hour course in HIV/AIDS: a one-time requirement that must be completed in the first biennium before the first renewal.
- A 2-hour course in Florida laws and rules in the first renewal cycle and every renewal cycle (every 2 years) thereafter.
- A 2-hour course in domestic violence every third renewal, or every 6 years. This requirement is in addition to the 24 hours required for renewal, and the licensee will have 26 hours of continuing education during the renewal period when this course is taken.
- A 2-hour course in recognizing impairment in the workplace upon initial licensure and every other renewal cycle or every 4 years thereafter.
- A 2-hour course in human trafficking every biennium.

Nurses who are certified by an accredited healthcare specialty program, as approved by the BON, are exempt from most of the continuing education requirements. Examples are certified registered nurse anesthetists, certified nurse midwives, certified psychiatric nurses, and certified family nurse practitioners. The continuing education exemption does not apply to the 2-hour course in human trafficking requirement. Also, all APRNs must complete at least 3 hours of continuing education each biennium on the safe and effective prescription of controlled substances, and the only approved courses are those that are provided by statewide physician professional associations, the American Nurses Credentialing Center, the American Association of Nurse Anesthetists, or the American Association of Nurse Practitioners (Nurse Practice Act, 2022, §464.013).

The Florida Department of Health, Division of Medical Quality Assurance, verifies a nurse's continuing education record using an electronic tracking system at the time of license renewal. CE Broker (https://www.cebroker.com) is the official CE electronic tracking system for the Department of Health. There is no cost to create a basic account. The system is designed to be an easy and convenient way to help practitioners digitally store their continuing education hours and certificates. Nurses may also use CE Broker to access the Official Course Search for the Florida Department of Health to search for continuing education courses that are approved by the Florida BON (CE Broker, n.d.).

The Florida BON provides a quick and easy method to determine profession-specific continuing education requirements on its website—which may be accessed at https://floridasnursing.gov/—by clicking on the "Renewals" link at the top of the page and then clicking on the icon for "Continuing Education Information." On the Continuing Education—CE/CEU page, there are web page navigation instructions leading to specific continuing education requirements for RNs, LPNs, and APRNs (Florida Board of Nursing, n.d.d).

Self-Assessment Quiz Question #5

Oscar is preparing to reapply for re-licensure as an LPN in Florida. He knows he needs to record the continuing education (CE) courses he has completed. Where should he go to verify that his CE courses have been recorded for the state?

a. Department of Health Portal.
b. Board of Nursing Portal.
c. (correct) CE Broker.
d. Official Course Search database.

DISCIPLINARY ACTION

Nurses who fall below minimum competency or who present a danger to the public are prohibited from practicing in the state of Florida. Not knowing or understanding the laws and rules that govern the practice of nursing in Florida puts nurses at risk for disciplinary action. Furthermore, the BON clearly states on its website that, although many nurses who face discipline claim they "did not know," this does not alleviate the nurse's accountability (Florida Board of Nursing, 2022). Accordingly, nurses must be familiar with the Grounds for Discipline, Section 456.072(1) of the Florida Statutes, Disciplinary Actions found in Section 464.018 of the Nurse Practice Act, and Rule 64B9-8 of the Florida Administrative Code.

GROUNDS FOR DISCIPLINARY ACTION

Nurses should become familiar with the laws and rules that describe when disciplinary action may arise and the penalties that may be imposed as described in the Florida Statutes and the Florida Administrative Code. Some grounds for disciplinary action may not come as a surprise -- such as fraud, deception, criminal conviction, and sexual misconduct. Other grounds that may not seem as obvious, but are easy to understand, include the following (Health Professions and Occupations, 2021, Section 456.072):

- Failing to repay a state or federal student loan.
- Having action taken against a license in another state.
- Failing to comply with HIV and domestic violence continuing education requirements.

- Testing positive for any drug on pre-employment screening without a lawful prescription for the drug.
- Attempting to perform or performing the wrong procedure, or performing a procedure on the wrong patient or wrong site.
- Leaving a foreign body in a patient.

Some grounds for disciplinary action are not well defined, but nurses are held accountable for knowing which acts they are permitted to perform under the law and based on their qualifications, training, and experience. These grounds include the following:

- Practicing beyond one's scope of practice.
- Engaging in unprofessional conduct as determined by the BON.
- Improper delegation of duties.
- Being unable to practice nursing with reasonable skill and safety because of substance abuse or a mental or physical condition.
- Failing to report any person who the licensee knows is violating a rule of the BON or a law of the Florida Department of Health.

Rule 64B9-8.005 of the Florida Administrative Code provides a more detailed description about which acts the board of nursing deems unprofessional conduct (Florida Board of Nursing, 2022, r. 64B9-8005):

- Inaccurate recording.
- Misappropriating drugs, supplies, or equipment.
- Leaving a nursing assignment without advising licensed nursing personnel.
- Stealing from a patient.
- Violating the integrity of a medication administration system or information technology system.
- Falsifying or altering patient records or nursing progress records, employment applications, or time records.
- Violating the confidentiality of information or knowledge concerning a patient.
- Discriminating based on race, creed, religion, sex, age, or national origin in the rendering of nursing services as it relates to human rights and dignity of the individual.
- Engaging in fraud, misrepresentation, or deceit when taking the licensing examination.
- Impersonating another licensed practitioner or permitting another to use their certificate for practicing nursing.
- Providing false or incorrect information to the employer regarding the status of the license.
- Practicing beyond the scope of the licensee's license, educational preparation, or nursing experience.
- Using force against a patient, striking a patient, or throwing objects at a patient.
- Using abusive, threatening, or foul language in front of a patient or directing such language toward a patient.
- Accepting a gift from a patient if value exceeds the employer's policy regarding gifts.
- Knowingly obtaining, using, attempting to obtain or use a patient's property with the intent to deprive the patient of the use, benefit, or possession of the funds, assets, or property temporarily or permanently, or to benefit someone other than the patient.

Disciplinary action may be taken even if the violation was unintentional. The nurse is held accountable for acts that are committed, as well as those that are omitted, or acts that should have been carried out but were not (Florida Board of Nursing, 2022; Nurse Practice Act, 2022, §435.07).

Nursing Practice Consideration: Nurse C.S. who had been practicing for 20 years, unintentionally violated a patient's right to privacy even though he knew the importance of safeguarding patient privacy and confidentiality. The nurse obtained the permission of the patient's brother to take the patient's picture using the nurse's personal cell phone. He asked for the brother's permission to do so because the patient was not able to give consent because of her mental and physical condition. Later that day, the nurse met a former employee who had taken care of the patient in the past. The nurse showed the former employee the photograph and discussed the condition of the patient with her. The nurse erroneously believed that he had valid consent since the patient's brother gave him permission, and he did not know that it was inappropriate to discuss the patient's condition with someone who was formerly involved in their care. The nurse's actions were determined to be a violation of patient confidentiality (NCSBN, 2018).

SOCIAL MEDIA

The National Council of State Boards of Nursing (NCSBN; 2018) published A Nurse's Guide to the Use of Social Media, which is useful in understanding critical issues related to using social media. When used appropriately, social media benefits healthcare by fostering professional relationships, facilitating communication with patients and family members, and educating and informing consumers and healthcare professionals. Healthcare organizations that approve the use of electronic and social media often have policies that govern their use by employees in the workplace. However, the nurse's use of social media outside the workplace to discuss workplace issues puts the nurse at great risk for serious consequences—even if unintentional. This includes making comments on social media that are detailed enough that a patient can be identified or posting videos or photographs of patients (NCSBN, 2018).

Nursing Practice Consideration: S.T., a surgical nurse, took a photograph during surgery using her personal cell phone. She posted it to Facebook stating she had a difficult day at work. While the nurse did not see anything wrong with sharing insight into her job, this was in violation of the healthcare facility's policy that photographs or videos of patients are not to be taken on personal devices or shared on social media, regardless of any identifying information being visible in the image.

Nurses should be aware that information that is exchanged on social media can be discovered by a court of law even if the content has been deleted. Before posting anything that is work related on social media, nurses must consider whether the use of social media is appropriate and the consequences that may occur if they post inappropriate content (NCSBN, 2018).

DISCIPLINARY PROCESS

The law related to the discipline of Health Professionals stems from the 2011 Florida Statutes, Section 456.072, Grounds for discipline, penalties; enforcement (Florida Statute 2011). The Nurse Practice Act and the Board of Nursing interpret the law and determine the rules that govern the disciplinary process for nursing.

A member of the public may file a complaint against a licensed nurse with the Florida Department of Health by accessing the Florida BON website, which is linked to the Department of Health's enforcement website. Following are examples of complaints that may warrant investigation (Florida Department of Health, n.d.c):

- Practicing below minimum standards or being negligent.
- Impairment or a medical condition.
- Sexual misconduct with a patient.
- Misfiled or mislabeled prescription.
- Failure to release medical records.

When a complaint is filed against a nurse, the Investigative Services Unit (ISU) investigates (Florida Department of Health, n.d.d). If the allegations are substantiated, attorneys for the

Prosecution Services Unit (PSU) conduct a legal review of the investigative report and recommend a course of action, which could include any of the following (Florida Department of Health, n.d.e):

- Emergency order: Emergency orders are issued by the Florida Department of Health when the nurse poses an immediate threat to the health, safety, and welfare of the people of Florida.
- Expert review.
- Closing order: A closing order is recommended if the investigation does not support the alleged violation.
- Administrative complaint: An administrative complaint is recommended when the investigation or expert opinion supports the allegations in the complaint.

A probable cause panel (PCP), which is comprised of two or three members of the BON, reviews all the evidence and information obtained during the investigation and makes the final recommendation, which may or may not be consistent with the recommendation of the PSU legal review. The PCP may recommend escalation of the case to the formal administrative complaint phase, closure with a letter of guidance, or dismissal (Florida Department of Health, n.d.a).

If a complaint or allegations are filed that may give rise to disciplinary action by the BON or the Department of Health, the nurse should seek the advice and counsel of an attorney who is qualified to represent nurses in administrative disciplinary matters as soon as possible.

Upon the filing of an administrative complaint by the PSU, the nurse has the following options (Florida Department of Health, n.d.e):

- Choose to have a hearing to dispute the facts, in which the nurse may be asked to testify.
- Enter into an agreement, which could include penalties.
- Not dispute the facts but request a hearing to mitigate or oppose the action by the BON.
- Voluntarily relinquish their license and cease practicing as a nurse in the state of Florida.

The BON reviews each case to make a final determination as to whether a violation has occurred and enters a final order that states the discipline to be taken, if any. The BON may also take final action for cases in which the nurse has failed to respond to the administrative complaint. In some cases, the nurse has the right to an appeal (Florida Department of Health, n.d.d).

When the BON determines that grounds for disciplinary action exist, it may impose one or more of the following penalties under Section 456.072 of the Florida Statutes (Health Professions and Occupations, 2021):

- Action against the license such as restriction, probation, suspension, or revocation.
- Administrative fine up to $10,000 for each count or offense.
- Reprimand or letter of concern.
- Conditions of probation such as treatment, education, re-examination, and supervision.
- Corrective action.
- Refund of fees billed and collected from a patient or third party.

Once the BON has entered a final order for disciplinary action to be taken, the Compliance Management Unit of the Department of Health ensures that the nurse complies with the terms of the final order and any penalties imposed (Florida Department of Health, n.d.b). The nurse must bear all costs that are associated with compliance with disciplinary final orders (Florida Board of Nursing, 2022, r. 64B9-8). For example, if the nurse is required to enter a treatment program for substance abuse, the nurse is responsible for all costs associated with such treatment. The nurse is also responsible for the costs of investigating and prosecuting the case, which are determined by an affidavit of itemized costs of salaries and benefits of personnel who worked on the case, time spent by the attorney and other personnel who worked on the case, and any other expenses incurred, including costs of an expert to render an opinion (Health Professions and Occupations, 2021, §456.072[4]).

In fiscal year 2021-2022 Second Quarter, the Department of Health, Medical Quality Assurance group received over 31,000 complaints. Of these, 1,389 were legally sufficient complaints against licensed practical nurses, registered nurses, and advanced practice registered nurses. The PCP found probable cause in 254 cases against licensed practical nurses, registered nurses, and advanced practice registered nurses which resulted in a variety of disciplinary actions: emergency suspension, emergency restriction, voluntary relinquishment, obligations/conditions, reprimand, fines, citations, probation, suspension, and revocation of the license (Florida Department of Health, n.d.f). The public may verify the status of a nursing license and search disciplinary records online by accessing the Florida Department of Health's website (http://www.floridahealth.gov/licensing-and-regulation/index.html) and searching by board, profession, case number, name, date, and action taken.

Self-Assessment Quiz Question #6

Which of the following issues a final order for disciplinary action when it is determined that a violation has occurred?

a. A criminal judge.
b. The state attorney general.
c. The Department of Justice.
d. The Florida Board of Nursing.

SCOPE AND STANDARDS OF NURSING PRACTICE

Scope of practice describes the acts that nurses are permitted to perform based on the laws and rules that regulate nursing practice, and depends on the individual nurse's education, experience, role, and the population served (American Nurses Association, 2021). In contrast, standards of acceptable and prevailing nursing practice refer to the duties that the nurse is expected to perform competently (American Nurses Association). Scope of practice and standards of practice for nurses are subject to change over time as new patterns of professional practice emerge and are accepted by the nursing profession and the public (American Nurses Association). However, the focus always remains on the health, safety, and welfare of patients. The nursing profession and national nursing and specialty-specific professional organizations broadly define scope of practice and standards of practice for nursing.

Although published scope and standards for nursing practice do not carry the force of state laws or regulations, they can be used to inform lawmakers, nurses, and the public of the standards of acceptable and prevailing nursing practice. Examples of published scope and standards for nursing practice include Nursing: Scope and Standards of Practice, 4th edition (2021) and Pediatric Nursing: Scope and Standards of Practice, 2nd edition by the American Nurses Association (2015).

Acts or omissions that are grounds for disciplinary action may also give rise to a claim of liability or a lawsuit for negligence by a patient who believes they have suffered harm. Conversely, a claim for negligence may give rise to disciplinary action by the BON. Reviewing closed claims or negligence lawsuits that have been resolved may clarify the types of circumstances under which nurses have been held accountable for practicing below the standards of acceptable and prevailing nursing practice. In a lawsuit for negligence, this is known as the standard of care.

The Nurses Service Organization (NSO) and CNA Healthcare Underwriting (2020) published 4th edition data about closed claims and maintain a database of legal case studies that nurses can search online to learn more about circumstances under which nurses have been held accountable.

In its 2015 report, CNA Healthcare Underwriting reports that between January 1, 2010 and December 31, 2014, there were 549 nurse claims that were evaluated and closed. In 2020, it was reported that the number of claims had increased 4% to 571. The average claim is $210,513 (NSO and CNA, 2020). The most common claims by allegation are:

- Communication failures.
- Monitoring.
- Scope of practice.
- Documentation.
- Medication administration.
- Treatment/care.
- Assessment.
- Patients' rights/abuse/professional conduct.

Nurses must understand and adhere to state laws and regulations regarding nursing practice, as well as the established rules and policies of the healthcare organization in which they are providing care. Nurses should refuse to perform any acts or duties in violation of such laws, regulations, rules, and policies; immediately notify their immediate supervisor when declining to perform an act or duty; and follow the chain of command regarding practice issues according to the policies of the healthcare facility, which could include contacting the risk management or legal department (NSO and CNA, 2020).

DELEGATION OF AUTHORITY

Nurses are called upon to work effectively with unlicensed assistive personnel (UAP) who provide patient care under their supervision. Delegating and supervising safely and effectively are essential nursing skills (ANA & NCSBN, n.d.). Delegation is defined as the transference to a competent individual of the authority to perform a selected task or activity in a selected situation by a nurse qualified by licensure and experience to perform the task or activity. The delegator is the RN or LPN who transfers their authority to another, and the delegate is the UAP who receives authority from the nurse (Florida Board of Nursing, 2022, r. 64B9-14.001).

Nurses are required to use nursing judgment when considering the suitability of delegating a task or activity to another and must weigh the potential for harm, the complexity of the task, the predictability of the outcome, the level of interaction required, and the availability of resources when deciding to delegate (Florida Board of Nursing, 2022, r. 64B9-14.002). A nurse may not delegate activities that are not within their scope of practice or activities that require special nursing knowledge, judgment, or skills such as nursing assessments, nursing diagnosis, and the development and evaluation of the nursing plan of care (Florida Board of Nursing, 2022, r. 64B9-14.003).

The registered nurse, as defined in Florida Rule 64B9-14, Section 464.0156 of the Board of Nursing, Florida Code (2022), shall not delegate:

- Those activities not within the delegating or supervising nurse's scope of practice.
- Nursing activities that include the use of the nursing process and require the special knowledge, nursing judgment, or skills of a registered or practical nurse, including:
  - The initial nursing assessment or any subsequent assessments.
  - The determination of the nursing diagnosis or interpretations of nursing assessments.
  - Establishment of the nursing care goals and development of the plan of care.
  - Evaluation of progress in relationship to the plan of care.
  - Those activities for which the UAP has not demonstrated competence.

When interpreting Rule 64B9-14 (2021) and the factors that must be weighed when making the decision to delegate, it may be helpful to consider guidance by the NCSBN & ANA (2019), which urges nurses to use critical thinking and professional judgment when delegating and to follow the five "rights" of delegation:

- Right task.
- Right circumstances.
- Right person.
- Right directions and communications.
- Right supervision and evaluation.

For example, a qualified nurse may delegate authority to perform a routine dressing change for a surgical patient, so long as the nurse determines, using her nursing judgment, that the UAP is competent to carry out the task using the proper technique, and the nurse communicates with and supervises the UAP as required. However, it would not be permissible to delegate this task if the patient's condition was unstable or if the patient was experiencing surgical bleeding. Likewise, it would not be permissible to delegate the task of surgical wound assessment to a UAP, as this involves the use of special knowledge, nursing judgment, and skills of a registered or practical nurse.

Delegating authority to perform a task or activity to another does not relieve the nurse of responsibility for the patient or the quality of care that is being provided. Florida regulations require the nurse, when delegating, to initially assign and periodically inspect the accomplishment of the task or activity to be performed (Board of Nursing, 2019). The regulations also clearly state that total nursing care responsibility remains with the qualified nurse who delegates tasks or assumes responsibility for supervision (Board of Nursing, 2019).

Self-Assessment Quiz Question #7

Mr. H has pushed his call light multiple times requesting a pain medication. Mary, the RN responsible for Mr. H's care, is finishing documentation for an incident that occurred with another patient. She has the pain medication for Mr. H in her hand, but does not want to delay the administration of the medication any longer. Crystal, the UAP assisting her, says she can give Mr. H his medication. Mary nods and hands Crystal the pain medication for administration to Mr. H. If this had been reported as improper delegation, who would be held responsible?

a. Physician who ordered the medication.
b. The UAP who accepted the delegated task.
c. The qualified nurse who delegated the task.
d. The nurse manager who supervises the qualified nurse.

INTERVENTION PROJECT FOR NURSES

The Intervention Project for Nurses (IPN) was established in 1983 by the Florida Legislature to ensure public health and safety through a program that closely monitors nurses who are unsafe to practice because of impairment from substance use disorders or because of psychiatric or physical conditions that may affect the nurses' ability to practice with skill and safety (IPN, n.d.a). One of the objectives of the program is to provide a method for affected nurses to be rehabilitated using a process that is therapeutic, confidential, and nonpunitive (IPN, n.d.b). If a nurse suspects that another nurse is unable to provide safe nursing care because of impairment, Florida's mandatory reporting law requires the nurse to report any suspected impairment in practice to the Department of Health or to the IPN (Nurse Practice Act, 2018, §464.018). Resources for the Intervention Project for Nurses may be found in the reference section for this course.

Resources

Some helpful information can be found at the following websites:

- CE Broker. *Track your official Florida CE/CME records*. Retrieved from https://cebroker.com/fl/plans.
- Florida Board of Nursing. *How do I*. Retrieved from https://floridasnursing.gov/how-do-i/.
- Florida Department of Health *Online licensing services portal*. Retrieved from https://flhealthsource.gov/.
- Intervention Project for Nurses. *FAQ*. Retrieved from https://www.ipnfl.org/about/.
- Intervention Project for Nurses. *Assisting nurses through care and accountability*. Retrieved from https://journals.lww.com/jan/Citation/2015/07000/Florida_Intervention_Project_for_Nurses A.9.aspx.
- National Council of State Boards of Nursing. *NLC FAQs*. Retrieved from https://www.ncsbn.org/nlc-faqs.htm. National Council of State Boards of Nursing. https://www.ncsbn.org/member-boards.htm.

Conclusion

The laws and rules that govern nursing practice in Florida are continually being evaluated and revised to ensure that the health, safety, and welfare of the public are protected in our dynamic healthcare environment. The state of Florida requires nurses to be responsible and accountable for knowing the laws and regulations and understanding how they affect nursing practice. The BON is a rich source of information about nursing practice in Florida. Nurses are expected to stay current, to be proactive in obtaining information about practice issues, and to understand the requirements for re-licensure.

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FLORIDA LAWS AND RULES GOVERNING NURSING PRACTICE

Self-Assessment Answers and Rationales

1. The correct answer is A.
Rationale: The Florida BON is authorized to adopt rules and establish procedures for implementing the laws related to nursing practice in Florida (Health Professions and Occupations, 2021, §456.001).

2. The correct answer is A.
Rationale: Rule 64B-12.003 says that unless working under the direct supervision of RN or physician, the LPN cannot push medication. The LPN may provide saline flushes (Nurse Practice Act, 2022, §464.003).

3. The correct answer is D.
Rationale: The Nurse Licensure Compact (NLC) aims to advance public protection and access to care through recognition of one multistate license that is enforced at the state level but permits nurses to practice in all member states (NLC, n.d.a).

4. The correct answer is C.
Rationale: A person who graduates from a prelicensure nursing education program may use the term graduate nurse and abbreviation GN or the term graduate practical nurse and the abbreviation GPN pending the results of the first licensure examination for which they are eligible. This does not apply during the time that results are pending for subsequent attempts on the applicable licensure examination.

5. The correct answer is C.
Rationale: The Florida Department of Health, Division of Medical Quality Assurance, verifies a nurse's continuing education record using an electronic tracking system at the time of license renewal. CE Broker (https://www.cebroker.com) is the official CE electronic tracking system for the Department of Health.

6. The correct answer is D.
Rationale: The Board of Nursing (BON) reviews each case to make a final determination as to whether a violation has occurred and enters a final order that states the discipline to be taken, if any. The BON may also take final action for cases in which the nurse has failed to respond to the administrative complaint. In some cases, the nurse has the right to an appeal (Florida Department of Health, n.d.a).

7. The correct answer is C.
Rationale: A nurse may not delegate activities that are not within their scope of practice or activities that require special nursing knowledge, judgment, or skills such as nursing assessments, nursing diagnosis, and the development and evaluation of the nursing plan of care (Florida Board of Nursing, 2022, r. 64B9-14.003).

FLORIDA LAWS AND RULES GOVERNING NURSING PRACTICE

Final Examination Questions

Select the best answer for each question and mark your answers on the Final Examination Answer Sheet found on page 145 or complete your test online at **EliteLearning.com/Book**

11. To comply with Rule 64B9, to earn continuing education on the laws and rules that govern the practice of nursing in Florida, the nurse should choose:
    a. An agency-specific one contact hour in-service program.
    b. Participation in a two contact hour professional meeting.
    c. A continuing education program approved by the Florida Board of Nursing for one contact hour.
    d. A continuing education program approved by the Florida Board of Nursing for two contact hours.
12. In Florida, one primary difference between an advanced practice registered nurse and an autonomous advanced practice registered nurse is that the autonomous advanced practice registered nurse:
    a. May independently admit patients to the hospital.
    b. Is required to have a doctoral degree in nursing.
    c. May conduct simple surgeries.
    d. May order Schedule II medications.
13. Regardless of their specific job, and in addition to required Florida continuing education courses for all nurses, all APRNs must complete a minimum of 3 hours of approved continuing education every 2 years on which of the following topics?
    a. The safe use of marijuana.
    b. Safe and effective prescribing of controlled substances.
    c. Workplace safety.
    d. Legal documentation.
14. If a nurse fails to renew the professional practice license and it expires at the end of the renewal cycle, what is the status of the license?
    a. Delinquent.
    b. Null.
    c. Inactive.
    d. Retired
15. How many contact hours for continuing education are the licensed registered and licensed practical nurse required to obtain for a licensing cycle?
    a. One-half contact hour for every month during the licensure cycle.
    b. One contact hour for every month during the licensure cycle.
    c. Four contact hours every other month during the licensure cycle.
    d. 30 contact hours every 2 years.
16. Which of the following is an example of Florida's Administrative Code for unprofessional conduct?
    a. Leaving a nursing assignment without advising another licensed nurse.
    b. Altering a nursing progress note.
    c. Using foul language in front of a patient.
    d. All of the above.
17. According to the National Council of State Boards of Nursing, which of the following is an inappropriate use of social media standards?
    a. Using social media outside of the workplace to discuss a workplace issue.
    b. Using social media to foster a relationship with a colleague or peer.
    c. Using social media to facilitate communication with a patient or family.
    d. Using social media to educate consumers or healthcare professionals.
18. Under Florida law, when a nurse delegates a task to another person, this also transfers which of the following to perform the selected task?
    a. Ability.
    b. Authority.
    c. Responsibility.
    d. Accountability.
19. If a nurse is reported to the Board of Nursing because of some type of infraction, who is responsible for all fees related to the investigation and prosecution of the case?
    a. The Board of Nursing.
    b. The Florida Department of Health.
    c. The nurse's employer.
    d. The nurse.
20. Which of the following may be issued when an investigation concludes that a nurse poses an immediate threat to the health, safety, and welfare of the people of Florida?
    a. Emergency order.
    b. Closing order.
    c. Complaint.
    d. Final order.

Course Code: ANCCFL02RG

Human Trafficking in Florida, 2nd Edition (Mandatory)

2 contact hours

Release date: November 4, 2022

Expiration date: November 4, 2025

Faculty

Author: Michelle Lyman, MD, MPH, is a family medicine resident working at the University of North Carolina in Chapel Hill. She graduated from the University of South Florida College of Medicine in 2019 with a dual degree in medicine and a master of public health specializing in epidemiology. Michelle also earned a graduate certificate through the Scholarly Excellence Leadership Experience and Collaborative Training (SELECT) program. During medical school, Michelle worked with Physicians Against Trafficking of Humans (PATH) through the American Medical Women's Association (AMWA), as well as HEAL Trafficking, to promote improved medical education on trafficking. She has presented her work on simulation-based curriculum at several national conferences and has designed several inaugural training programs at her medical school that continue to this day. Michelle's current training goals are to learn broad-spectrum care to better serve vulnerable populations and foster community health.

Reviewer: Adrianne Avillion, DEd, RN, is an accomplished nurse educator and published healthcare education author. Dr. Avillion earned a doctoral degree in adult education and an MS from Penn State University after earning a BSN from Bloomsburg University. She has served in various nursing roles over her career in leadership and as a bedside clinical nurse. She has published extensively and is a frequent presenter at conferences and conventions devoted to the specialty of continuing education and nursing professional development. She currently 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.

Course overview

Healthcare personnel are on the front lines of the fight against human trafficking. Nurses, physicians, physician assistants, and all healthcare personnel must be alert to the often-overlooked signs of trafficking in their patients. This course is designed to provide a sensitive overview of the issue of abuse in human trafficking and how it affects patients and their families. It also meets the requirements of the Florida State Board of Nursing for continuing education regarding human trafficking.

Learning objectives

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

- Describe the incidence, scope, and types of human trafficking in Florida
- List risk factors and warning signs for those who may become or who are victims of human trafficking
- Discuss intervention strategies to approach trafficking victims and determine treatment
- Identify reporting agencies and community resources for Florida human trafficking victims

How to receive credit

- Read the entire course online or in print which requires a 2-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal information and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion.

CE Broker reporting

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

Accreditations and approvals

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

Individual state nursing approvals

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

Activity director

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

Disclosures

Resolution of conflict of interest

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

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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

Human trafficking happens globally and affects all genders, ages, sexual orientations, ethnicities, and races. Though human trafficking has existed for millennia, legal definitions have emerged only during the twenty-first century. The most widely accepted definition is one proposed by the 2000 General Assembly of the United Nations Protocol to Prevent, Suppress, and Punish Trafficking in Persons, Especially Women and Children and is similar to those put forth in subsequent revisions of the policy. Trafficking occurs when an individual is recruited, transported, transferred, harbored, and/or received by force, fraud, or coercion for the purpose of exploitation by a trafficker. The exploitation may take various forms, such as sex trafficking or labor trafficking. Ultimately, three distinct elements validate a case of trafficking: The act, the means, and the purpose (United Nations Office on Drugs and Crime [UNODC], 2020).

The definition put forth by the United Nations is explicit that consent is irrelevant and that anyone under 18 years of age is considered a child (UNODC, 2018). Providing effective aid to individuals who have been trafficked requires that healthcare providers recognize and understand the many types of trafficking that occur: Sex trafficking, labor trafficking, debt bondage, and organ trafficking (UNODC, 2018; U.S. Department of State, 2021).

Regardless of the type of human trafficking, whether it be for the purpose of sex, labor, or organ trafficking, there are three distinct elements within each case: The act, the means, and the purpose (UNODC, 2020). Healthcare professionals can use the elements of human trafficking as outlined by the U.S. Department of States (2021)—the means, the purpose, and the act—to recognize human trafficking. This knowledge will enable healthcare professionals to identify scenarios in which screening for trafficking is appropriate and gives them a better understanding of what trafficked persons may have experienced.

Healthcare providers are on the front lines of recognizing signs of trafficking and advocating for their patients (Gomes, 2020). However, when the healthcare provider does not have accurate knowledge related to what to recognize and how to care for patients who are being trafficked, those trafficked persons will return from medical encounters to their lives of coercion and manipulation. Intervening and advocating for trafficked persons become difficult when healthcare providers do not know the signs of trafficking, what steps to take to provide aid, and how to empower patients to leave their current abusive situation. Moreover, a question emerges as to how healthcare providers can best address trafficked persons' health concerns while simultaneously addressing their complex trauma and/or coercion.

Table 1: Elements of the Human Trafficking Process		
TRAFFICKING		
Act	**Means**	**Purpose**
Recruits Harbors Transports Provides Obtains Patronizes Solicits	Force Fraud Coercion	Forced labor Prostitution of others Sexual exploitation Slavery Organ removal
Note: Adapted from the U.S. Department of State (2022)		

The act

The act refers to the traffickers' actions. These actions, which may include recruiting, transporting, transferring, and harboring, are common among traffickers who seek to profit from the lives of others. However, not all the examples of acts listed in Table 1 must take place for the act to be defined as human trafficking. For example, trafficking does not always entail transport. Recall that trafficking is defined as the use of force, fraud, or coercion; thus, there are a number of types of acts that meet the definition of trafficking (UNODC, 2020). A complex dynamic exists between traffickers and those they are exploiting; the means and purpose that drive the act provide a deeper perspective into the crime.

The means

The means used by traffickers are integral to the definition of this element of human trafficking. The use of threats or force, coercion, and fraud define human trafficking. A common misconception is that trafficking always involves physical force; that is, a weaker individual is physically forced to live with and provide services for the trafficker. However, not all traffickers use physical force to exert control. Instead, traffickers use a myriad of powerful, coercive techniques, such as deception and legal threats, to groom and exploit others (UNODC, 2020).

Traffickers may use deception to insert themselves into the lives of those they are controlling. False promises and offers can evolve into a more sinister reality of abuse and exploitation. These can be seen when traffickers promise opportunities that instead result in poor working and living conditions. Threats of legal or social repercussions may also control the individual. Many traffickers prey upon a person's fear of being deported or arrested and convince the person being trafficked that it is they, not the trafficker, who is committing a crime and would be arrested. Conversely, traffickers may show intimacy and affection toward the person, who may have been deprived of both before and during trafficking (Polaris Project, 2021), and then use that perception of a close relationship to manipulate and exploit the person.

The purpose

The purpose of human trafficking is often to gain profit from others without their consent. Using complex and dehumanizing means, traffickers have generated one of the largest industries in the world (UNODC, 2020). Human trafficking is estimated to gross more than US$150 billion worldwide (International Labor Organization [ILO], 2017). The illegal practice is highly profitable for traffickers because services provided by trafficked persons, whether they involve sex or labor, may be exploited repeatedly. Research into the market and profitability of trafficking is difficult due to the covert nature of the crime. Traffickers' profits may vary greatly depending on the individual communities they work in, the demographics of whom they exploit, and other factors (UNODC, 2020).

Factors that increase trafficking include proximity to international borders, large immigrant populations, numerous ports and airports, and industries that attract forced labor. The National Human Trafficking Hotline provides data from 2020 to report cases by state. Florida is number three after California (number one) and Texas (number two). (National Human Trafficking Hotline, 2020). Traffickers use these states as both entry and exit points for transporting individuals. Labor-trafficked individuals supply human resources and profits for industries such as agriculture, construction, domestic work, and manufacturing (U.S. Department of State, 2021). Labor trafficking also occurs within the hospitality sector, sales crews, shipyards, health and elder care, salon services, fairs and carnivals, and even peddling and begging (UNODC, 2018).

Incidence and scope

Human trafficking is a global public health and human rights issue (UNODC, 2020) that involves the exploitation of 49.6 million people (ILO, 2022) and yields profits of US$150 billion per year worldwide (ILO, 2017). Of the 49.6 million people living in modern slavery in 2021, there were 27.6 million were in forced labor and 22 million in forced marriage. Of those in forced labor, 63% were exploited in the private sector, 23% were in forced commercial sexual exploitation, and 14% were in forced labor by the state. Of the 6.3 million people forced into commercial sexual exploitation, 4.9 million of them are girls and women. Children account for 12% of all those in forced labor, with over half of these children compelled into commercial sexual exploitation (ILO, 2022).

In 2020 within the U.S., 10,583 situations of human trafficking were reported involving 16,658 individual victims (National Human Trafficking Hotline, 2021). Although organizations from all sectors have emerged to fight against and prevent human trafficking, healthcare professionals are in a unique position to prevent, identify, and care for persons who have been and are being trafficked. In fact, one study reported that 88% of trafficked women interacted with a healthcare professional during their time being trafficked (Dovydaitis, 2017). Despite a high frequency of contact with trafficked individuals, there is a documented lack of education (Powell et al., 2017) available to healthcare providers on the signs of human trafficking as well as a lack of protocols on how to care for trafficked individuals

The Polaris Project, a nonprofit non-governmental organization, operates a national and a global hotline, along with a text line that connects survivors of human trafficking with sources to assist them, as well as resources for communities to combat this

awful crime. According to the Polaris Project's website, "Our comprehensive model puts victims at the center of what we do—helping survivors restore their freedom, preventing more victims, and leveraging data and technology to pursue traffickers wherever they operate" (Polaris Project, 2022). The website includes contact information to help victims find resources in their area and a link and phone number for reporting suspected cases of human trafficking (Polaris Project, 2022). (To learn more about the Polaris Project, visit https://polarisproject.org/about.)

In 2012, the U.S. Department of Homeland Security's Blue Campaign was originated as a unified collective effort to combat human trafficking. This collaborative effort involves law enforcement, government, nongovernment, and private organizations. The effort was designed to combat human trafficking through awareness training, resources to assist victims, and tip reporting to appropriate law enforcement agency (Polaris Project, 2022).

According to a study by the U.S. Department of Justice (2022) Human Trafficking Task Force, 83% of sex trafficking victims identified in the U.S. are U.S. citizens. Over 50% of identified girl victims are between the ages of 15 and 17, whereas about 40% of trafficked boys are under 12 years of age (International Organization for Migration, 2022).

Evidence-based practice! Up to 87.8% of trafficked victims seek medical care at some point in their exploitation (Hemmings et al., 2016). This clearly indicates that nurses and medical care providers have a responsibility to rescue these victims and possibly identify traffickers exploiting others.

Florida information

Florida is considered a gateway state due to the innumerable ports, a year-round demand for farm labor, and a high demand for sex industry workers. It also has a high incidence of human trafficking (National Human Trafficking Hotline, 2021). Florida ranks third in the nation in the number of calls to the National Human Trafficking Hotline (National Human Trafficking Hotline, 2020). Since 2007, there have been 17,516 contacts by survivors or citizens who were aware of trafficking crimes, with 5,384 total cases opened. In 2020, there were 2,539 contacts made to the National Hotline, with 738 cases opened. Out of these cases, 517 were sex trafficking cases, 108 were related to labor trafficking, and 41 were combined sex and labor trafficking (Uitts, 2022).

In recent years, Florida legislation regarding human trafficking prevention and intervention has increased substantially. In 2020, Senate Bill 1826 was passed, which provides more protections for trafficking victims. It defines communication between trafficking victims and their advocates as confidential, lists training requirements for victim advocates, and expands the scope of specified human trafficking offenses relating to children under 18 years of age to include an adult believed to be under 18 years of age. County clerks are now prohibited from charging certain fees when trafficking victims request criminal history expungement, and victims may request expungements for all cases at one time instead of one case at a time. The legislation expands the list of crimes for which the courts must impose supervisory probation or parole for those who commit human trafficking offences.

In a Florida study of 913 youths who were reported to have been involved in human trafficking, 28.8% were 12 years of age or younger, 87.7% were female, and the majority had experienced some type of family violence (Ellis & Tran, 2016). Professionals in healthcare, child protective services, schools, and juvenile justice centers are the most likely first points of contact for these children (Ellis & Tran, 2016).

Since passage of the initial legislation, Florida has established a statewide human trafficking council. The council members review different strategies and collaborations to fight human trafficking. The state also has numerous laws relating to the process and act of trafficking in humans. Laws range from safe harbor regulations to mandatory posting of the human trafficking hotline number in public spaces, including gyms, airports, and libraries. The Florida Statewide Council on Human Trafficking was created through legislation passed and signed into law in 2014. The council consists of 15 members and includes representatives from law enforcement; prosecutors; legislators; and experts in the fields of health, education, and social services. The council is chaired by the attorney general of Florida (MyFloridaLegal.com, 2020).

The council's duties include the following (MyFloridaLegal.com, 2020).

- Develop recommendations for comprehensive programs and services, including recommendations for certification of safe houses and safe foster homes
- Make recommendations for apprehending and prosecuting traffickers and enhancing response coordination
- Hold an annual statewide policy summit with an institution of higher learning
- Develop overall policy recommendations

TYPES OF HUMAN TRAFFICKING

Human trafficking can be grouped into six general categories. Each of these crime categories encompasses a collection of related crimes (UNODC, 2020).

- Sex trafficking: This includes individuals transported or relocated to engage in coerced or forced sexual activities. This category includes men, women, and children.
- Forced labor: Forced labor trafficking encompasses several types of human trafficking, including slave labor, forced migrant work, forced labor on the seas, and child factory work.
- Organ trafficking and egg trafficking: This involves forced and coerced marriage and surrogate pregnancies.
- Debt bondage: This includes indentured servitude and family labor for payment.
- Domestic servitude: This encompasses domestic service for debt payment.
- Child soldiers: Child soldiers are individuals under age 18 who are coerced or forced to engage in armed conflicts.

Sex and labor trafficking can occur in a variety of licit and illicit settings. Formal industries and ways in which sex and labor trafficking occur in the U.S. include (NHTRC, 2015a; Polaris Project, 2022; UNODC, 2020):

- Agriculture: Including seasonal harvesting work and caring for animals
- Domestic work: Including cooking, cleaning, other household work, and caregiving
- Restaurants and small businesses: Including wait staff, kitchen staff, bussers, and dishwashers
- Military: Compulsory labor outside the scope of military tasks
- Traveling sales crews: Including peddling and begging rings; selling candy, magazine subscriptions, and other goods; and soliciting money
- Health and beauty services: Including nail salons, hair salons, spas, and massage parlors
- Escort services through agencies and online sex sites
- Brothels: Can be home-based, lodge-based, or at truck stops

Sex trafficking

In the past, sex trafficking was considered to be only prostitution, and many people falsely believed that those engaged in prostitution were willing participants. Definitive studies in this area have been few. Sex trafficking also includes young boys and adult males. Young children are involved in sex trafficking mainly for pornography purposes as well as prostitution for pedophiles (U.S. Department of Justice, 2017).

Forced labor

Forced labor trafficking includes slave labor (rarely identified as such in the U.S.), migrant work, forced labor on the seas, and child factory work. Undocumented immigrants with families often include their children in this type of labor (UNODC, 2020).

Organ trafficking and egg trafficking

The market for organ trafficking is increasing, with over $1 billion dollars generated each year from 12,000 or more illegal organ transplants. Those who become donors, often unwillingly, include migrants or individuals from poor countries (Gonzalez et al., 2020).

Frequently, young women in East Asia are forced to become egg donors. They are given hormones to increase the production of multiple eggs. They are then paid small amounts for their "donation." Any complications that arise are the donor's problem, and some women remain in captive situations for repeat donations. Romania, together with other Eastern European countries, including Turkey, has gradually adopted laws to combat human trafficking, including the trafficking of human eggs and embryos (Cokar et al., 2016).

Debt bondage

One form of trafficking recently on the rise is that of debt bondage. Debt bondage includes indentured servitude and family labor for payment (NHTRC, 2015a).

Domestic Servitude

Domestic servitude is a form of human trafficking found in particular circumstances, and the victims work in a private residence. It is a crime in which a domestic worker is not free to leave employment, is abused and underpaid, and sometimes is not paid at all. The worker's freedom to come and go from their place of employment is often quite limited. Because they work in private homes, their isolation and vulnerability are increased. Domestic workers, especially women, often face various forms of abuse, including harassment, exploitation, and sexual abuse (U.S. Department of State, 2021).

Child soldiers

Thousands of children worldwide are serving as soldiers in armed conflicts in many parts of the world. They are easy to control and to convince to "come aboard." These victims are generally males forced to join factions after being abducted and beaten into submission. Others join these military groups to escape poverty or to defend their communities out of a feeling for revenge (UNODC, 2020). Girls are also forced to join and many times are victims of sexual violence.

Healthcare consideration: Victims may be very afraid to leave their trafficker, even if they recognize the abuse, for fear of being arrested or pursued. Nurses should approach such victims with a calm, reassuring, and nonjudgmental manner.

THE PROCESS OF HUMAN TRAFFICKING

The process of trafficking is often complex. Nurses and clinicians can intervene at any point to disrupt the process. The process can be cyclical, with one trafficked person experiencing retrafficking after periods of reintegration (De Vries & Pharrell, 2017).

Recruitment

Recruitment ties into the vulnerabilities of the trafficked person. Traffickers look for traits they can exploit, such as a history of abuse, economic instability, and some psychological conditions (e.g., depression, self-harm; Hemmings et al., 2016). For example, socioeconomic factors may lead to a person seeking alternative means of meeting their basic needs, making them vulnerable to coercion by a trafficker. Alternatively, traffickers may target a person who does not have a strong support group, knowing that such a person may find it difficult to withstand their coercion.

As mentioned previously, those who experience homelessness may be initiated into trafficking while seeking survival, being recruited to trade sex or other services for food, housing, or money for medications. Transgender people are at an especially high risk of human trafficking and assault while they are homeless (UNODC, 2018; U.S. Department of State, 2019). For those who are incarcerated, traffickers may pay for commissary favors or bail, convincing individuals that they owe the trafficker money that must be repaid. Substance abuse and other forms of abuse can also predispose individuals to trafficking. Traffickers may supply the person with an addictive substance as a means of gaining control.

Research has demonstrated that people who have been trafficked frequently have a history of trauma, including a history of physical, emotional, and/or sexual abuse (Kiss & Zimmerman, 2019). This personal history may make it possible for traffickers to use emotional manipulation, providing the person with attention, gifts, and compliments to change their perception of the relationship. Persons who are trafficked may be trafficked by individuals they identify as a boyfriend, or they may be a family member (Chisolm-Straker & Stoklosa, 2017).

Traffickers are often master manipulators, and they use a variety of methods during this stage. As recruitment progresses and coercion escalates, some individuals still may not recognize that they are being trafficked. Instead, they might believe they are in an intimate relationship with their trafficker (Kiss & Zimmerman, 2019).

Transit and travel

The second stage of the human trafficking process is travel and transit. Movement is a common feature among trafficking cases, although trafficking can occur without the physical transportation of people, the trafficked persons may remain in the same country, state, or city (NHTRC, 2016). Individuals are often taken to a new city or even a new state to evade detection (Kiss & Zimmerman, 2019). Traffickers may create a pretext in which such travel seems innocuous, such as protecting the individual, but their actions can rapidly evolve into a pattern of coercion and open the door to further exploitation.

Transporting a person usually presents numerous risks for both the person and the trafficker. During this stage of trafficking,

traffickers may attempt to maximize their profits by pursuing unsafe transport methods, risking life-threatening journeys, and/or forging documents to evade authorities (Zimmerman & Kiss, 2017).

When moving a person, the trafficker often initiates a pattern of manipulative events, including violence and confiscation of documentation (Zimmerman & Kiss, 2017). Traffickers take passports, birth certificates, Social Security cards, and other legal documents under the guise of completing necessary documentation and paperwork, but they have no intention of returning them. Instead, they use them as further leverage and control. For women and girls who are trafficked, manipulative events can be the initiation of sexual violence. With sexual violence, trafficked persons may begin to recognize the signs of manipulation.

Evidence-based practice! The term *transport* does not only include movement between cities, states, or countries. People may be trafficked within their community while living in their own homes and remaining a part of their family life, all the while being trafficked. The trafficker may be controlling their movement in and around their home, exerting control over their movement within familiar spaces (U.S. Department of State, 2021).

Exploitation

Travel and transit lead to the next stage of the human trafficking process: Exploitation. Traffickers use various exploitation methods to control individuals (Dando et al., 2016). Exploitation can range from sexual, psychological, or physical abuse to poor living conditions and captivity.

Detention

Traffickers commonly continue their exploitation of others until a greater force, such as law enforcement or possibly a natural disaster, stops them. Upon leaving the exploitation, the trafficked person becomes a survivor—an empowering term used to describe trafficked persons who have escaped trafficking, either temporarily or permanently. Survivors may or may not enter the next state of the human trafficking process: Detention.

Detention is the stage during which trafficking survivors are in custody or engaged in close guarded collaboration with state authorities, such as law enforcement. Not everyone who is trafficked is detained, however. For those who are, detention plays an integral part in shaping their experiences and influencing their outcomes. A person might be held on charges of illegal immigration, prostitution, or other crimes and be unable to implicate their trafficker for fear of safety (e.g., repercussions from angered pimps and madams), because of the person's legal status, or for fear of other negative outcomes. Some trafficking survivors are deported by authorities and returned to their original country, only to be retrafficked, thus repeating the trafficking cycle (De Vries & Pharrell, 2018; UNODC, 2020). Detention may also include time spent in legal custody (e.g., prisons, deportation facilities)—a period of time the person may be separated from the trafficker but not yet integrated back into society.

While being detained, trafficked persons may be deprived of their basic needs, such as healthcare and sanitary living conditions, and may also face security concerns (Zimmerman & Kiss, 2017).

When cooperating with authorities to prosecute traffickers, survivors may risk retaliation and retraumatization as they recall harmful events that occurred during their trafficking. These stressors may contribute to existing health conditions from the trafficking, making integration/reintegration difficult and possibly influencing the survivor's return to trafficking. Negative experiences with authorities may also limit trafficked individuals' ability to report the crimes committed by their traffickers (De Vries & Pharrell, 2018; UNODC, 2020).

Integration/reintegration

When a person is able to leave a trafficker's exploitation and is not detained, the integration/reintegration stage of the human trafficking process begins. Integration and reintegration are similar terms that both reflect the long-term process of a person either entering fully into the cultural, civil, and political life in their new country or returning in those same domains to their country of origin (UNODC, 2018). The difference between integration and reintegration lies in the differences between trafficked persons who may wish to stay in their current location (integration) or who choose to return to their original home (reintegration).

Integration/reintegration can include removal procedures, criminal prosecution (possibly for the trafficker and the survivor), and survivor services, such as T visas and U visas (see Resources). However, it is likely that the trafficked person will return to many of the same factors that led to their initial trafficking, such as poverty and abuse (Zimmerman & Kiss, 2017). Additionally, many new obstacles can impede reintegration/integration, including negative stigmas and discrimination. These could translate into difficulty finding employment, securing housing, and reconnecting with previously established relationships. Other obstacles may include remaining safe and the threat of retrafficking. Additionally, survivors may be living with health issues acquired while they were being trafficked.

The integration/reintegration process is considered complete when the individual believes they have been accepted by the community and included in its economic, cultural, and political aspects (Zimmerman & Kiss, 2017).

Retrafficking

Previously trafficked persons may find themselves exiting and reentering the trafficking system at various stages of the cycle. This can occur for numerous reasons. In some cases, the trafficker may still be a part of their shared social groups and track the survivor's daily movements (De Vries & Pharrell, 2018).

The trafficker may even employ past recruitment techniques (e.g., substance use, threats, violence, intimacy) to regain control of the person. In other cases, the survivor may simply return to the same conditions that initially made them vulnerable. For example, the person may have limited economic opportunities or may now have increased debt due to health issues acquired while being trafficked. Additionally, while being trafficked a person may be confronted with legal issues, incurring charges for illicit substance possession, illegal weapons used for protection, and other charges. These charges can lead to legal fees and additional stressors that may increase their risk of becoming trafficked. Other risk factors may be present as well, making these survivors susceptible to retrafficking (De Vries & Pharrell, 2018).

Case study 1

Zelda, a 22-year-old nanny, was hired from Colombia to care for two toddlers in an affluent California family. She came to the U.S. on a domestic employee visa with promises of a good life and opportunities to advance her education by taking courses at the local community college. In reality, this was a 24/7 job consisting of cooking, cleaning, and childcare with no free time. Although she was provided room and board, she was expected to pay for all of her personal needs, clothing, and phone use. After fees for taxes were taken out by her employer, she took home less than $200 a month, with no benefits or vacation. This abuse was compounded by sexual advances by her employer and frequent verbal hostilities from the children's mother. Zelda was able to run away and ultimately turned to prostitution to support herself.

Zelda's case is an example of forced labor. She should be entitled to the same protections related to safe working conditions and minimum wage standards as others employed in the U.S. Although this was an abusive situation, she may have felt that she was trapped because she knew she had to work as a nanny to fulfill her visa requirements. Tragically, this situation is not unusual. Once victims are removed from their native country and family support systems, they are essentially prisoners.

Self-Assessment Quiz Question #1

Which of the following is likely true about Zelda's situation?

a. She will be afraid to seek medical care for fear of deportation.
b. Young women are vulnerable if they are homeless and desperate.
c. Women are at greatest risk for sexual exploitation.
d. All of the above are true.

Self-Assessment Quiz Question #2

Zelda may not see herself as exploited or a human trafficking victim because:

a. She agreed to engage in prostitution.
b. No one has told her that she was trafficked.
c. She has grounds to file a lawsuit.
d. She is an adult.

RISK FACTORS AND WARNING SIGNS

Trafficking crimes and those at risk

The demand for cheap agricultural labor, prostitution, fertility services, pornography, and other forced labor has perpetuated trafficking. New programs and international laws have sought to prohibit human trafficking. In 2003, the United Nations developed regulations that defined trafficking and criminalized human trafficking beyond prostitution to include the exploitation of forced labor or services and even organ trafficking (UNODC, 2020). The U.S. Victims of Trafficking and Violence Protection Act of 2000 (TVPA), officially made human trafficking a federal offense and provided initial legal definitions. The act also created the Office to Monitor and Combat Trafficking in Persons, which, along with the Department of State, publishes the Trafficking in Persons (TIP) Report annually (U.S. Department of State, 2021). By 2010, most states had passed laws with specific provisions against trafficking (U.S. Department of State, 2020).

Reporting suspected human traffickers can be complicated by the fact that some victims know little or nothing about their perpetrators. In other cases, the trafficked person may not understand that they are being trafficked according to the law (De Vries & Pharrell, 2018). For example, with youth experiencing homelessness, they may become involved in survival sex, exchanging sexual favors for food, lodging, money for medication, and/or illicit substances. Others may see their trafficker as a romantic partner or family member. With such varied experiences among trafficked individuals, it can be challenging for healthcare providers to recognize cases of trafficking. Having a clear comprehension of the definition of trafficking, as well as its scope, enables healthcare providers to more accurately identify and provide interventions for those being trafficked, including individuals who may be unaware of the full consequences of their current situation.

Legal action against trafficking has increased dramatically since the TVPA of 2000. However, many of these arrests continue to involve only the victims. Both labor and sex trafficking have legal implications. Those in the sex industry fear legal prosecution for prostitution. Foreign nationals involved in labor or sex trafficking may fear deportation. Similarly, they may be forced to carry illegal arms and/or substances as part of their trafficking and have previous arrest records. Traffickers can also feed into this fear as a means of manipulation, convincing them that the victim is the one who will be arrested, not the trafficker. Successful prosecution of trafficking crimes in U.S. agriculture, sweatshops, suburban mansions, escort agencies, brothels, lounges/bars, and strip clubs has been recorded (Domoney et al., 2015).

Multijurisdictional trafficking networks present a challenge in identifying the perpetrators for criminal prosecution. Immediate notification of a suspected case that may be potential human trafficking assists the Human Trafficking Prosecution Unit of the Department of Justice to provide victim assistance resources, legal guidance, and coordination among districts prosecuting overlapping criminal networks on a timely basis (Domoney et al., 2015).

Evidence-based practice! The first and greatest challenge is identifying victims or those who are at greatest risk of being trafficked. The 2019 Trafficking in Persons (TIP) Report identifies populations that are more vulnerable to trafficking in the U.S. These groups may seem to have little in common, but they are all at a greater risk for trafficking. These populations include (UNODC, 2018; U.S. Department of State, 2019):

- Children in the child welfare and juvenile justice systems
- Runaway youth
- Children working in agriculture
- American Indians and Alaska Natives
- Migrant laborers
- Foreign national domestic workers in diplomatic households
- Employees of businesses in ethnic communities
- Populations with limited English proficiency
- Persons with disabilities
- Rural populations
- Lesbian, gay, bisexual, and transgender (LGBT) individuals
- Persons who are incarcerated

Certain factors such as previous abuse or homelessness make individuals more vulnerable to trafficking. Traffickers target marginalized persons, often those with a weaker social support system, as well as those who have limited financial support.

Healthcare consideration: The Joint Commission (2018) provides helpful information on how healthcare professionals can identify human trafficking victims in their recent publication Quick Safety 42: Identify human trafficking victims, which can be accessed at https://www.jointcommission.org/resources/news-and-multimedia/newsletters/newsletters/quick-safety/quick-safety-42-identifying-human-trafficking-victims/

Traffickers may seek individuals with limited communication abilities, such as limited knowledge of the indigenous language,

because this vulnerability makes it more difficult for trafficked persons to leave the trafficker or report the abuse. Living in rural areas increases vulnerability to human trafficking because sparsely populated regions make the act of trafficking easier to hide. People who have been trafficked themselves may become traffickers later. Many different factors contribute to trafficking persons (U.S. Department of State, 2019).

Warning signs

Individuals who are trafficked are exposed to various health risks, including occupational exposures and physical, sexual, psychological, and social trauma (International Centre for Missing and Exploited Children [ICMEC], 2019). Individuals are at risk for these health conditions before, during, and after being trafficked. Health conditions such as mental health disorders, including depression and anxiety, and substance use disorders may persist even after a successful escape from trafficking. Additionally, preexisting conditions can exacerbate and complicate health problems that occur as a result of trafficking. Patients who are potentially trafficked may present with one telling symptom or multiple comorbidities. Recognizing these clinical symptoms and diagnoses as cues can lead to better identification of trafficked individuals (ICMEC, 2019).

Clinicians can use social history and contextual cues when identifying trafficked persons. Nurses need to draw connections between the methods and patterns of trafficking and the health consequences. Situational red flags include the constant presence of another person, usually a male, who typically stands across the room or positions himself over the patient. The victim may briefly glance at the person controlling them when they answer questions about their history (ICMEC, 2019).

Many maladies can be attributed to the effects of trafficking, and some are more common than others depending on the type of trafficking; for example, sexually transmitted infections (STIs) and pelvic inflammatory disease are more common in people who are sex trafficked than in those who are trafficked for labor, although STIs are not exclusive to sex trafficking (ICMEC, 2019). Unfortunately, psychological and physical violence may not be novel to those who are trafficked. Note that some of the signs of trafficking are not unique to trafficking. For example, there may be overlap in cases of intimate partner violence. Regardless, further screening is warranted to help identify patients who may be victims of trafficking or other violent crimes (ICMEC, 2019).

Psychological

Trafficked persons often experience posttraumatic stress disorder (PTSD), depression, suicidal ideation, drug addiction, and associated symptoms as a result of psychological violence (Chisolm-Straker & Stoklosa, 2017). An international study reported that among more than 600 trafficked men, women, and children, 38.9% had PTSD and 61.2% had depression (Kiss et al., 2015).

Overall mood and demeanor, eye contact, response clarity, and orientation of the patient should be noted. Suicidal ideation, anxiety, depression, and signs of posttraumatic stress disorder are some of the common problems reported by victims as a result of the abuse by their perpetrators or the violence incurred in the workplace (Shandro et al., 2016).

Evidence-based practice! Research has shown that restricted freedom is both a core factor of human trafficking and a significant risk factor for poor mental health (De Vries & Farrell, 2018; Kiss et al., 2015). Trafficked persons who were severely restricted in their activities were two times as likely to have symptoms of PTSD, anxiety, and depression compared with trafficked individuals with fewer restrictions. Shame, guilt, poor self-esteem, and fear for family members (based on threats by traffickers) create complex psychological stress that affects trafficked individuals negatively and can feed into the cycle of victimization and traumatization (De Vries & Farrell, 2018). Just as survivors can become retrafficked and retraumatized after the trafficking experience has ended, small circumstances can mimic the conditions experienced and trigger reactions even years after escaping.

Substance use disorder is also a frequent outcome among people who are trafficked. Trafficked persons may have been using substances prior to becoming trafficked or they may have begun to use substances as a means of coping with the extreme trauma and the chronic stress of their trafficking. Substance use may be an escape (Stoklosa et al., 2017).

Physical

Signs of physical violence are common among trafficking patients, ranging from broken bones to missing hair to bruising. Physical and sexual violence are prevalent among trafficked women. Injuries may appear to be at multiple stages of healing or untreated, suggesting chronic trauma and perhaps a delay in seeking care. Because social isolation is prevalent in this population, trafficked persons may not have access to healthcare for injury treatment. The trafficked person may present in the middle of the night for injuries from a trafficking-related trauma or for simple medical care.

Pelvic inflammatory disease, STIs, ectopic pregnancies, and HIV/AIDS are a few common medical conditions seen in sex-trafficked individuals. Labor trafficking can cause physical injuries related to occupational exposures, including accidents related to poor personal safety equipment, abuse from supervisors, and ailments resulting from inadequate living conditions (NHTRC, 2015b). Poor ventilation, sanitation, and nutrition, as well as airborne and bacterial contaminants, are also health risks associated with labor exploitation (ICMEC, 2019). Additionally, working long hours with little rest can contribute to work-related injuries. Labor-trafficked women are at high risk for sexual violence and its consequences. In one international study of labor-trafficked men, women, and children, women experienced sexual assault in 43.9% of the cases, compared with their male counterparts at 1.3% and children at 21.5% (Kiss et al., 2015). Other common physical health symptoms seen with labor and sex trafficking include headache, fatigue, dizziness, back pain, and memory problems (Kiss et al., 2015).

Evidence-based practice! Branding (i.e., intentionally inflicting burns or cuts to create symbols) is a common way for traffickers to demonstrate ownership (ICMEC, 2019). Those who are being trafficked may have their trafficker's name, a pseudonym, or a bar code tattooed or etched into their skin to signify the trafficker's permanent ownership (Shandro et al., 2016). Asking about a tattoo's significance during a healthcare visit may illicit details about the patient's social history.

Social

Some key contextual indicators for identifying patients who are being trafficked may seem unrelated to health, but they may help a nurse identify trafficking as being possible. For example, clinicians should pay attention to who attends the patient's appointments and how the patient behaves in the office or examination room. A "minder" (the person who is taking care of or in an ownership role) posing as an aunt, boyfriend, or other family member will often speak for the patient when questions are asked (ICMEC, 2019).

Separating the patient and "minder" may free the patient to disclose information during an interview, which may be one of the best approaches a healthcare provider can take to aid the patient. Even when alone with a healthcare professional, a trafficked person may be fearful or hesitant to answer questions. In the case of foreign individuals who are being trafficked, English may be a second language, making it even more difficult to discover the trafficking through an interview. When interviewing a person who speaks English as a second language, clinicians should use a professional interpreter, not a family member or the minder (ICMEC, 2019).

Evidence-based practice! Children who have been exploited may act more self-confident or mature than their age, have unusual access to possessions or money, and report that they are not attending school (Mather & Feldman-Jacobs, 2015). Women and girls who are exploited for sex do not always report physical abuse, but the coercion, threats of violence toward them or their families, and menacing control used against them is similar to the characteristics of torture (Department of Justice, 2017). A red flag for identifying these victims is when victims have difficulty describing when they work, when they sleep, what they usually eat, and how many clients they serve.

The National Human Trafficking Resource Center is an excellent resource for clinicians. This center may be contacted to report a tip or for training materials and information on resources. The center is available 24 hours a day, 7 days a week at 1-888-3737-888. It can also be reached by text between 3 and 11 p.m., Eastern Time, at 233-733. The website for the National Human Trafficking Resource Center is https://humantraffickinghotline.org/

Case study 2

Elena, a 23-year-old Romanian woman, reports to the emergency department with persistent vaginal bleeding. She is dressed in a worn dress that seems inappropriate for the cold weather. Her vital signs are BP 142/88, pulse 122, respirations 20, and temperature 98°F. She seems withdrawn and very quiet. She is attended by an older Hispanic male who guides her by holding her upper arm when she walks. Her history includes a vague report of irregular menstrual periods and three previous pregnancies, but no living children. The outcomes of the previous pregnancies and the gestation time when the pregnancies were lost are not known by Elena, or she is averse to disclosing how the pregnancies were terminated. She has been bleeding for about 10 days. On examination, scarring around the vagina is evident, with recent abrasions of the labia. The examination of the cervix shows evidence of previous pregnancies and multiple lines of scar tissue indicative of forced abortions. The man with her refuses to leave the room during her examination, and she agrees that he can stay. She continuously looks at the floor and speaks only in brief one-word answers, but she seems to comprehend English. Diagnostic studies include various blood work, a pregnancy test, testing for sexually transmitted diseases, and an abdominal X-ray.

Self-Assessment Quiz Question #3

What actions should the nurse practitioner take for the welfare of this patient?

a. Ask the patient to talk with her in private after the X-ray when her attendant is not there.
b. Tell her to call her relatives or friends.
c. Call a priest to see her immediately.
d. Have security detain her for law enforcement pick-up.

Self-Assessment Quiz Question #4

What human trafficking red flags are evident in this case?

a. Physical signs of sexual abuse.
b. Persistent presence of a nonrelative.
c. Fragmented history.
d. All of the above.

Self-Assessment Quiz Question #5

What actions should be taken next?

a. Ask the hospital social worker or on-call psychiatrist to see the patient.
b. Admit the patient to the psychiatric unit.
c. Call the CIA or FBI.
d. Discharge the patient with prescriptions and a crisis hotline phone number.

Self-Assessment Quiz Question #6

Who should be notified of a suspected human trafficking case?

a. The unit supervisor, hospital administration, patient's family, and social services.
b. The attending physician and hospital security.
c. Medical and nursing administration, social services, and the National Human Trafficking Resource Center.
d. No one without the patient's permission.

INTERVENTION STRATEGIES FOR HUMAN TRAFFICKING VICTIMS

Assessing possible victims

Recognizing that a patient may be a victim is the first step, but this is often difficult because signs can be quite subtle. It can be challenging to find a balance between asking important questions of the patient and limiting the risk of retraumatization or triggering memories that make the patient relive the trauma. A caring, trauma-informed approach is often more important than the specific questions asked. (Note that trauma-informed care refers to patient-centered care that acknowledges the potential traumas that each patient may have experienced) (Substance Abuse and Mental Health Services Administration, Health Resources and Services Administration [SAMHSA-HRSA], 2022).

The goal for every clinical encounter is to provide quality care that minimizes harm to the patient and addresses their health needs. While disclosure of trafficking may occur, it is never the primary goal of the patient encounter. Pressuring patients for a disclosure reduces their agency and could contribute to mistrust in the medical system.

In 2019, Dignity Health's Human Rights Clinic put forth guidelines based on survivor informed practices for improved screening. Creating the PEARR (Privacy, Educate, Ask, Respect, and Resources) tool, Dignity Health presents a framework for

engaging with any patient who may be trafficked (Dignity Health, 2019).

It should be ensured discussion take place without the presence of any other individuals that the patient may have arrived with as well as ensuring that the interview space is away from the eyes and ears of others. The "educate" portion focuses on discussing in general terms what trafficking is, coming to a mutual understanding with the person who may be trafficked about its definition. This is important as many may not identify as being trafficked (Dignity Health, 2019; ICMEC, 2019).

The ask guidelines can be approached from a variety of ways. Some may use similar questions to those put forth by other screening guidelines. It may also be asking if the signs and symptoms reviewed in the education portion apply to the patient. The respect guidelines include acknowledging the patient's right not to answer specific questions as well as using trauma-informed care to avoid retraumatizing them. Finally, the resources portion includes providing the tools and services that the individual needs moving forward. Whether the person is attempting to leave their trafficker or are only ready to receive directed medical care, there are a variety of basic needs that may need to be met (Dignity Health, 2019; ICMEC, 2019).

The National Human Trafficking Training and Technical Assistance Center (NHTTAC) developed a human trafficking screening tool for adults (2018). The training and toolkit share similar principles with the PEARR method, including establishing a relationship and reviewing indications of trafficking. The training also discusses safety planning for patients.

The following questions can help healthcare professionals assess for possible human trafficking (Owen et al., 2015):

- Are there bruises of other signs of physical abuse?
- Are there signs of psychological abuse?
- Is the person submissive or fearful?
- Is the person being controlled?
- Is the person being deprived of food, water, sleep, medical care, or other life necessities?
- Is the person allowed to be in public alone?
- Can the person freely contact friends or family?
- Is the person a minor engaged in commercial sex?
- Is the person a minor who appears to be in a relationship with a much older person?
- Does the person fear their employer?
- Can the person leave their job if they want to?
- Has someone threatened the person's family?
- Does the person have identification?
- Does the person know their address?

Although this list may not be definitive for every situation, the questions focus on trafficking parameters that can lead to identification of the crime.

Obtaining a health history from a child may require subtle questions. A child may not identify what has happened to them as abuse. Asking more fill-in-the-blank or open-ended questions can yield better information than direct yes/no questions. Instead of asking if they are given enough to eat, the clinician should ask the child something like "Can you tell me what you usually have for breakfast/lunch/dinner?" It may be useful to ask questions such as "Where do you usually sleep?" or "Can you tell me about this bruise?" Using probes, such as repeated words that the child has said or rephrasing their response for clarification, may also help elicit the actual situation. The clinician should avoid letting an adult who may be attending the child answer the questions (Dignity Health, 2019; ICMEC, 2019).

Healthcare consideration: Avoid using yes/no response questions. Answers to such questions do not provide enough accurate information. Keep questions open-ended and give the individual plenty of time to respond.

The first priority should always be ensuring the safety of the patient and staff. The concept of safety encompasses the physical and psychological safety of the patient who may have been trafficked, as well as the staff. Patients need to be certain that they are not in danger, either from their trafficker or from the authorities. Many patients are hesitant to volunteer information or cooperate with authorities because their trafficking experience has left them with no control over their lives or bodies and without a sense of safety (Dignity Health, 2019). Healthcare professionals should be aware of the safety protocols specific for their facility, such as which phone numbers to call in case of threats of physical violence. Physical safety is a primary concern for both healthcare providers and patients. More details on creating a safety plan for staff members and patients is provided in the security section of this course.

People who are being trafficked often have the best insight into safety threats and risk in their life with the trafficker. While it is important to advocate for their immediate safety and well-being, it is also vital to build trust with the patient and integrate their intimate knowledge of the trafficking situation into their safety plan.

Healthcare consideration: How healthcare providers conduct themselves is also important, especially in the early stages of obtaining information from a potentially trafficked individual. Nurses should be nonjudgmental and allow the patient to process and convey their history in a safe and contained way (ICMEC, 2019). It may be the first time that the patient explores the fact that they have been trafficked, and this acknowledgment may cause emotional distress and affect the person's psychological safety.

Case study 3

Susan, a 19-year-old girl, has been living on the street for that past three years, since she ran away from her Michigan farm. Her history is reported in fragments, with most of the information told to a nurse who walked with her to the bathroom. She originally came to New Orleans with a boyfriend, who got her a job dancing in a men's club. She worked more and more hours until her boyfriend introduced her to some of his friends who would pay her for lap dances and give her cocaine to help her "get in the party mood." At times, the guys would get rough with her and her boyfriend would "slap her around some to show her who's boss."

There are yellow and brown bruises on the left side of her face, and she has a swollen area and a laceration on her upper lip. Susan tells the nurse that she has been drinking heavily and using some drugs that she does not know the name of for about a year, although her story of the events was sketchy. She does not appear intoxicated at this time, but she is agitated and shaky. Whenever she is asked a question, she looks at her boyfriend before answering. Her reported address is generally described as "staying with a friend who moves a lot." She has come to the emergency department with the boyfriend who stands across the room glaring at her. Despite the cold weather, Susan is wearing a lightweight shirt and jeans that seem too large for her, with the belt loops tied up in the back to make the waist smaller. Her clothes seem clean, but the shirt has some old brown stains at the shoulder that may have been blood. She is wearing flip-flops.

Susan complains of vaginal bleeding that has not stopped for three weeks and very painful intercourse. Her boyfriend says that she needs a birth control shot to stop the bleeding and some pain pills. She is pale, has a BP of 130/78, pulse of 100, respirations of 22, and temperature of 100.8°F. She has agreed to a gynecological exam.

Self-Assessment Quiz Question #7

What is the first priority of the admitting nurse?
a. The patient's physical exam.
b. Securing IV access.
c. Drawing blood for probable lab work.
d. Ensuring the safety of patient and staff.

Self-Assessment Quiz Question #8

Establishing trust with Susan may be promoted by all of the following EXCEPT:
a. Using a nonjudgmental attitude.
b. Having police approach her.
c. Sitting at eye level.
d. Talking to her in private

Self-Assessment Quiz Question #9

After having Susan's boyfriend leave the room during her exam, the nurse decides to take special precautions in her examination and include which of the following?
a. Inspecting Susan's skin by revealing only one area at a time.
b. Making sure only one female is in the room with the nurse and Susan.
c. Taking this opportunity to give Susan information about resources.
d. All of the above.

Self-Assessment Quiz Question #10

Susan represents only one type of human trafficking victim. What are other types?
a. Forced labor trafficking.
b. Organ trafficking.
c. Debt bondage.
d. All of the above.

TRAUMA-INFORMED CARE

Trauma-informed care is a broad approach to treating all patients, many of whom have experienced trauma and its physical, emotional, and social repercussions. This understanding the prevalence of and response to trauma is not a concept unique to caring for people who have been trafficked. Rather, it is a lens to view all people, patients and healthcare professionals, in the healthcare setting. Any individual may have experienced a trauma that is affecting their actions and decisions. Trauma-informed care emphasizes the wide impact that trauma has on individual's well-being and empowers survivors of trauma (Dignity Health, 2019; Hemmings et al., 2016).

Trauma is dissected into the three E's: Event, experience of the event, and effect (Lathan et al., 2020). Identifying these elements of trauma helps deepen the healthcare provider's understanding of how trauma differs among individuals (see Table 2).

Table 2: Definition and Example of the Three E's

	Definition	Example
Event	Either single or recurring circumstances of actual or extreme threat of physical or psychological harm or neglect.	Witnessing violence against others, being sexually violated, verbal abuse and/or threats, etc.
Experience	The individual's perceptions of the event(s); how he or she labels it, assigns meaning to it, and is affected physically and psychologically by it.	For two siblings living in a toxic and abusive environment, one may view the experience as negative, and the other may not.
Effect	The results and repercussions of the events, most frequently described as adverse effects, which negatively affect the individual who experienced the traumatic event.	Decreased ability to cope with normal stresses, developing a. stress disorder such as PTSD, etc.

Note: Adapted from Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*. (HHS Publication No. [SMA] 14-4884). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Healthcare professionals may frequently feel overextended. It is easy to fall into the trap of making a quick value judgment about patients. Bias may prevent the staff from doing a thorough assessment, or they may quickly dismiss any subtle signs. Some providers have only a few seconds to shake hands with a patient and persons accompanying them, make eye contact, and introduce themselves. These few seconds can give the provider time to recognize not only physical signs such as tremors, sweating, or cold clammy skin but also the emotional effect of fear or anxiety in either the patient or the attending person. Rushing to treatment and discharge can have deadly consequences for the patient who faces continued abuse.

Mandatory reporting

Awareness of trafficking has risen greatly over the past decade, and new laws address this crime. Healthcare professionals should make it a point to research and keep up to date with what laws are passed. It is important to know the legal requirements of reporting within one's state of practice and to proceed accordingly. The National Conference of State Legislatures (2016) provides a list of human trafficking laws specific to each state as well as a breakdown of laws related to mandatory reporting by state (see Resources).

Reasons for not wishing to report cases of human trafficking are complex and largely center on the need to maintain the patient's trust. Trafficked individuals often have a powerful distrust of authority, especially law enforcement. They fear legal repercussions for themselves, especially when involved in commercial sex exploitation. Additionally, trafficked minors may worry about the potentially rage-filled retribution they may suffer when their traffickers find out they contacted the authorities. Being aware of these complexities and the existing laws will aid in selecting the appropriate course of action. Reporting suspected cases of human trafficking is a professional responsibility of all healthcare personnel. Accurate documentation and reporting are the only ways lives can be saved and this type of modern-day slavery can be stopped.

Healthcare consideration: An estimated 100,000 to 200,000 American children are sexually exploited, some as young as five years old. Another 400,000 to 500,000 are involved in child labor in agriculture. At least a third of these children will end up seeking medical care, and the majority will not be recognized as trafficking victims (Domoney et al., 2015).

The Child Abuse Prevention of Treatment Act of 1974 (CAPTA) mandates that in order to receive federal funding for child abuse and neglect programs, states must have child abuse reporting laws (English, 2017). With subsequent reauthorizations of the amendment, child abuse has been broadened to include sexual exploitation and abuse of minors, both of which have mandatory reporting requirements. There are differences in specific state laws, with some states including human trafficking, while others do not (English, 2017).

Patients treated in the emergency department or clinic with suspicious injuries, behavior or affect changes, and other appearance and history red flags should always be treated as potential human trafficking victims.

Establishing trust

Those who have been trafficked may be fearful that they are in danger, from both their traffickers and the authorities. This fear and history of exploitation may translate to distrust of health professionals, related to the advice they give as well as whether they will maintain confidentiality. Key principles of building and maintaining trust involve discussing these issues forthrightly and avoiding making promises that one cannot keep (Dignity Health, 2019; ICMEC, 2019).

Basic interpersonal sensitivity and caring must be used to develop trust with suspected victims. Sitting at eye level with the patient, attempting to see the patient without the person who accompanied them, and displaying patience will help to establish trust. Asking nonjudgmental questions while making it clear that the patient's safety is a priority will aid in eliciting needed specifics (Edmonson et al., 2017). The services of an interpreter should be obtained if the victim is having trouble communicating in English.

Preferences related to personal distance, gender crossing, and touching vary dramatically across cultures. Trauma-informed care requires sensitivity to the victim's culture as well as their need for safety and empowerment (Mather & Feldman-Jacobs, 2015). All care procedures should be conducted with gentleness. Victims should be touched only with permission. Ask, "I need to touch you here to check for injuries. Is that okay?" Especially with victims of violence, taking part of the history after some trust is established may increase the information obtained.

Women and girls who are sex trafficked often experience rape while in transit, establishing an early element of control and fear. PTSD, depression, mood disorders, and anxiety are common reactions to this trauma (ICMEC, 2019). Symptoms of PTSD—hyperarousal, or feeling jittery; flashbacks, or reliving the events; changes in feelings or beliefs; paranoia; and avoidance or keeping busy to avoid thinking—are part of the clinical picture (ICMEC, 2019). These pervasive symptoms also contribute to the use of alcohol and street drugs.

Assessment of the victim's body

The healthcare professional may encourage children victims to simply nod their head if a named part of the body is hurting them because they may be unwilling to put the pain into words (ICMEC, 2019). Skin inspections should be done on any suspected trafficking victim and detailed documentation made in their chart. Exposing skin areas in segments will help to maintain the patient's privacy and dignity and build trust. Traumatic alopecia, bite marks, and wounds or cigarette burns are red flags for abuse (Edmonson et al., 2017). Scattered bald spots, particularly on the top of the head, can indicate physical restraint by hair pulling. The clinician should examine the extremities, neck, groin, and axillae for needle marks, tracks, or any signs of IV drug use.

Transparency, or openly sharing all parts of any procedure before they occur and while they are occurring and being clear regarding the examination process, is paramount (ICMEC, 2019).

As discussed later in the section on mandatory reporting, there are instances when state law requires that authorities be contacted. Informing patients about this process before they reveal sensitive information can build trust. It may affect how much the patient reveals, but ultimately it will build a relationship with the patient and likely make them feel more comfortable returning to the healthcare setting if given the chance. Healthcare providers who gain the trust of their patients must ensure that they keep that trust (ICMEC, 2019).

Assessing for sexual abuse in sex trafficking victims

Performing gynecological examinations and testing for STIs and hepatitis B is vital. Pregnancy tests should also be included. These areas should not be overlooked when examining children. However, because few pediatricians are prepared for or comfortable performing examinations of sexual trafficking victims, a gynecologist may need to be consulted (ICMEC, 2019).

The gynecological exam should focus on signs of trauma, such as lacerations, bruises, and scarring. Traffickers may have forced victims to use cotton and sponges to block menstruation in order to avoid any down time in sex services. Though it is not always considered abuse, evidence of female genital mutilation should also be carefully documented as a human rights issue (Barron et al., 2016). Vaginal injuries, changes in menstrual cycle, acute and chronic pain, and urinary tract infections are common consequences of rape and forced prostitution (Edmonson et al., 2017).

Victims who choose to leave the clinic or emergency department after receiving only immediate care need to be reassured that they can return. A nonjudgmental attitude will help them to consider further care and may save their life. A small piece of paper with the unlabeled trafficking hotline number can be given to the patient in a clandestine manner if the trafficker is present. Children who are obvious victims of abuse can be taken into protective custody.

Documentation

A comprehensive recording of the patient's history and physical exam is critical in suspected cases of human trafficking. Descriptions may be used for future investigations or in legal proceedings. Exact information on the color and size of bruises, as well as the number of wounds, tattoos, piercings, branding marks, or other evidence is important. Bruises and wounds

should be annotated by color instead of estimated age of the injury because patients heal at different rates. Phrases such as "This injury is not consistent with the patient's reported history" can be used. Photographs should be taken only with the patient's express consent. Getting the patient's consent helps to build trust and can allow the clinician to photograph the patient's face to complete the evidence credibility (Edmonson et al., 2017).

When the slightest doubt exists that the patient may be a victim of trafficking or domestic violence, photographs should be taken before wounds are treated, if at all possible. Securing permission for photographs may be difficult. Taking a few minutes to explain how careful documentation may help the patient with possible legal action for restitution in the future may encourage cooperation. Reassure the victim that the photos will not be shared and will be a part of the medical record.

If the patient denies human trafficking or exploitation, evidence should still be carefully recorded along with a statement such as "Human trafficking is suspected." When possible, the exact words of the patient should be documented. Physical reactions to touching, such as jumping or flinching, should also be documented.

Many providers have not been formally educated on how to identify and assess these victims (Powell et al., 2017). Because victims are more likely to disclose trafficking or coercion to a healthcare professional than to police, it is critical that professionals know what must be evaluated. Reporting and documenting each case is the place to start, but working with community resources and professional organizations and informing our politicians is also part of our professional responsibility.

Documenting interactions with patients is standard in many healthcare settings and for all levels of professionals. These records are especially important and sensitive in cases of human trafficking because documentation may be vital in tracking the health of a trafficked individual and future legal redress (ICMEC, 2019). Keeping secure, accurate, and unbiased records of quotes, oral disclosures, and written descriptions provides invaluable information. For example, an alias may be needed for patients whose identities are sensitive and at risk of discovery by their traffickers; the healthcare system needs procedures to ensure the security of patient information.

Specific documentation considerations include written descriptions; sketches; and photographic evidence of injuries, with patient permission. Initial and, if possible, serial follow-up documentation may be useful in following the progression of injuries. With the adoption of electronic medical records, it can be especially challenging to ensure that the trafficker can't access the medical records. While capturing information for the medical history and potential legal use, online access to medical notes could alert traffickers to suspicion. Protocols should incorporate trauma-informed care practices by respecting and informing patients of their right to refuse details or not allow photographic evidence. These practices may inflict retraumatization (Dignity Health, 2019; ICMEC, 2019).

Reporting agencies and resources

The U.S. Department of Health and Human Services program Look beneath the Surface has raised awareness of human trafficking while assisting the public in identifying these victims and the services/resources available to them (U.S. Department of State, 2017). Reporting human trafficking may be seen as intimidating or time consuming, making healthcare personnel reluctant to act. Personnel may also fear invading a person's privacy or reporting cases that turn out not to be criminal. Victims sometimes ask for their situation to be kept confidential. In these cases, the healthcare professional is obligated to inform the patient of their suspicion of the situation. It should be shared that the clinician is concerned about the victim's health and it must be reported. It is also important to ensure that the victim's identity is protected. Failure to report a crime is omission of a nurse's duty as well as something that may put the patient at risk of further injury or even death (Dignity Health, 2019; ICMEC, 2019).

Some victims choose not to leave their situation, no matter how abusive it may be; they might not even identify the situation as exploitive. Fear of retribution or threatened harm to their family may keep victims from divulging the true nature of the situation. If the person is an adult, this is the individual's choice. This decision must be respected, although general information without the patient's identity can be reported to authorities. In these cases, clinicians must provide safe care of the patient with a nonjudgmental attitude and offer information on crisis centers or other resources (Dignity Health, 2019; ICMEC, 2019).

Empowering involves giving an individual or group the ability to make choices and turn these decisions into actions and outcomes (Dignity Health, 2019; U.S. Department of State, 2019). Trafficked persons must make their own choices, and it is through their voices that healthcare providers can increase awareness of trafficking, understand their needs on the path to reintegration, and help influence the care of other trafficked persons. For example, a trafficked woman who is seen in the healthcare setting can benefit from information on how to leave her trafficker but may not be in the position to do so immediately. The most beneficial course of action is helping her find the right time and method of escaping, which should be her decision.

If the victim accepts the information, the clinician can provide just the phone number of the National Human Trafficking Resource Center on a small slip of paper that may be easily hidden in a pocket or a shoe, being careful not to label the number in case the trafficker or others see it. Human trafficking information with phone numbers, text messaging numbers, and local crisis resources should be posted in bathrooms where victims may be able to see the information in private (Dignity Health, 2019; ICMEC, 2019).

Healthcare consideration: Healthcare professionals have an ethical and legal obligation to guard the patient's safety by reporting any suspected abuse or potential human trafficking. The patient's identity can be kept confidential. The National Human Trafficking Resource Center can be reached 24/7 at 1-888-373-7888. Post this information where you work.

CALL TO ACTION

Identifying and caring for victims is just the beginning of healthcare professionals' responsibilities. Many states and professional organizations need concerned, informed healthcare professionals to work on committees that are fighting human trafficking.

Recent decades have seen increased awareness of human trafficking and its implications. Although trafficking has existed for centuries in many different forms, there is much that is still being studied about its impact and health consequences, as well as ways to stop the practice. Advocacy for trafficked individuals and their rights is valuable in fighting against human trafficking.

Resources in the advocacy field include the following.

- The NHTRC manages the Human Trafficking Hotline and collects statistics on trafficking practices in the U.S. It has several initiatives for advocating against human trafficking (NHTRC, 2015b). https://humantraffickinghotline.org/
- HEAL Trafficking (health, education, advocacy, and linkages) is an advocacy group with a broad public healthcare

perspective. This organization acts to connect healthcare, legal, and other professionals in the fight against human trafficking. HEAL Trafficking actively petitions the U.S. government to support legislation for improved healthcare training and patient services. https://healtrafficking.org/

- Multiple advocacy groups supported Senate Bill S.1446. In 2013, the bill established the Stop, Observe, Ask, and Respond (SOAR) to Health and Wellness Training pilot program launched by the Administration for Children and Families (ACF). The program seeks to increase the scope of healthcare professionals trained to identify and care for trafficked persons. https://www.acf.hhs.gov/otip/training/soar-to-health-and-wellness-training
- In June 2015, the Department of Health and Human Services established the Office on Trafficking in Persons within ACF (Powell et al., 2017). https://www.acf.hhs.gov/otip

Services for trafficked individuals

A trafficked person might have many needs, ranging from finding safe housing to finding the right legal services to protect against further persecution. Legislation in the U.S. stipulates that persons who have been trafficked are entitled to a T visa after they escape from their trafficker, should they have been trafficked into the country without proper documentation (National Conference of State Legislatures, 2016). Additional laws such as safe harbor laws protect children who were sex trafficked (National Conference of State Legislatures, 2016).

Certified trafficking victims can receive housing and food assistance, income and employment assistance, English-language training, mental health and healthcare (Medicaid) services, and foster care. Federal law enforcement agencies can also request a continued presence permit for foreign victims of severe trafficking crimes who are also witnesses so they can remain in the U.S. and secure an employment authorization document. The Office of Refugee Resettlement also provides a resource guide for social service providers (Urbina, 2015). Contact for this office, as well as other government agencies, can be made through the National Human Trafficking Resource Center.

Human trafficking can be stopped, and victims can be rescued by nonjudgmental professionals who look beyond the presenting signs of alcohol and drug abuse, sexually transmitted diseases, and unkempt appearances to provide the best of care.

Conclusion

Healthcare personnel are on the front lines of the fight against human trafficking. Nurses, physicians, physician assistants, and all healthcare personnel must be alert to the often-overlooked signs of trafficking in their patients. This course provided an overview of abuse in human trafficking and how it affects patients and their families. It also meets the requirements of the Florida State Board of Nursing for continuing education regarding human trafficking.

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HUMAN TRAFFICKING IN FLORIDA

Self-Assessment Answers and Rationales

1. **The correct answer is D.**
   Rationale: Trafficking victims are often in the U.S. illegally and can be coerced out of fear of discovery and deportation. Young women who are homeless are at greatest risk of sexual exploitation because they cannot shelter alone without fear of sexual abuse.

2. **The correct answer is A.**
   Rationale: Victims who have been coerced feel guilty, may feel that they have no choice but to agree to sexual exploitation, and typically are not familiar with the laws defining trafficking.

3. **The correct answer is A.**
   Rationale: Privacy and gender matching, females talking to females, are important to promote the trust necessary to elicit not only a reliable history but also information on trafficking. She is likely afraid to talk about her plight in front of her abuser for fear of repercussions. For that same reason she probably will not contact others who may be punished for helping her. She may be Muslim or feel guilty about talking with authority figures from a church.

4. **The correct answer is D.**
   Rationale: Three red flag indicators of trafficking are demeanor, story/history, and situation. All of these are clear indicators of intimidation and control being exercised over a human trafficking victim.

5. **The correct answer is A.**
   Rationale: In addition to reporting suspected cases to an immediate medical and nursing administration, social services, and mental health providers as necessary, nurses and physicians have a professional ethical obligation to advocate for the patient by reporting cases to law enforcement. Trafficking victims often experience posttraumatic stress, depression, and other emotional problems associated with their trauma. The CIA and FBI are not the appropriate agencies to deal with trafficking. The Department of Justice is the reporting agency. Discharging the patient denies her the care she needs.

6. **The correct answer is C.**
   Rationale: In addition to reporting suspected cases to an immediate medical and nursing administration, social services, and mental health providers as necessary, nurses and physicians have a professional ethical obligation to advocate for the patient by reporting cases to law enforcement. Often, the nurse wants to help and do the right thing but may not know the best resources. One excellent resource is the National Human Trafficking Resource Center. The patient's identity can be protected, and hospital security is typically not trained to handle trafficking cases but may be of value later. Notifying the patient's family may put them in danger of repercussions from the traffickers.

7. **The correct answer is D.**
   Rationale: Safety is always the priority because trafficking is a criminal action that may involve a network of criminals that could threaten the patient and staff. The physical exam may not be conducted until some history is obtained. An IV and blood work may not be required.

8. **The correct answer is B.**
   Rationale: All of these promote trust, except introducing police because the patient may fear the authorities or may have committed crimes under the influence of the perpetrators.

9. **The correct answer is D.**
   Rationale: All of these actions will promote trust by respecting the patient's privacy and acknowledging her fears of the boyfriend who is likely controlling her.

10. **The correct answer is D.**
    Rationale: All of these are types of human trafficking in addition to Susan's type of sex trafficking.

HUMAN TRAFFICKING IN FLORIDA, 2ND EDITION

Final Examination Questions

Select the best answer for each question and mark your answers on the Final Examination Answer Sheet found on page 145 or complete your test online at **EliteLearning.com/Book**

21. Which is not one of the three Es of trauma?
    a. Event
    b. Experience
    c. Effects
    d. Empathy

22. As of 2020, Florida ranks _____ in the nation in the number of calls to the National Human Trafficking Hotline
    a. First
    b. Second
    c. Third
    d. Fourth

23. It is estimated that there are ___________ illegal organ transplants annually.
    a. 1,000
    b. 12,000
    c. 20,000
    d. 50,000

24. What does the 'P' stand for in the PEARR tool?
    a. Privacy
    b. Patient
    c. Portal
    d. Protection

25. Roughly how many individuals are exploited annually by human trafficking?
    a. 100,000
    b. 1 million
    c. 50 million
    d. 100 million

26. The Florida Statewide Council on Human Trafficking consists of how many members?
    a. 3
    b. 10
    c. 15
    d. 27

27. Which of the following is a a nonprofit non-governmental organization, operates a national and a global hotline, along with a text line for resources?
    a. The National Organization to End Trafficking
    b. The Polaris Project
    c. The Human Trafficking Combat Team
    d. Human Against Trafficking

28. Florida is considered a "_______" state due to the innumerable ports, a year-round demand for farm labor, and a high demand for sex industry workers.
    a. Party
    b. High-risk
    c. Gateway
    d. Booming

29. The U.S. Victims of Trafficking and Violence Protection Act of 2000 (TVPA), officially made human trafficking a _____________.
    a. State issue
    b. Misdemeanor
    c. International concern
    d. Federal offense

30. What can the term "transport" refer to?
    a. Being trafficked across state lines
    b. Being trafficked in another country
    c. Being trafficked in one's community
    d. All of the Above

Course Code: ANCCFL02FT

Preventing Medical Errors for Florida Nurses

2 Contact Hours

Release Date: December 15, 2022

Expiration Date: December 15, 2024

Faculty

Marquetta Flaugher, PhD, APRN-BC, is a practicing family nurse practitioner who works in medicine services. She provides care to populations of all age groups, writing and providing education on medications daily. In addition, she teaches in graduate online universities about common and complex healthcare, often discussing treatments that include medications. She also teaches management courses and reviews evidence-based practice on patient safety.

Course overview

The purpose of this course is to review the prevalence of common medication errors, why they may occur, and interventions to help decrease the risk of these errors occurring. Case studies are provided to show real-life scenarios that can occur in any healthcare environment. The course meets minimum mandated requirements for Florida nursing licensure.

Learning objectives

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

- Analyze factors that contribute to medication errors.
- Discuss common medication errors that can happen in the work environment.
- Identify concepts and techniques that may help to prevent medication errors.
- Discuss ethical considerations impacting patient safety and medication errors.
- Acknowledge the Florida Board of Nursing licensure requirement on medication errors.

How to receive credit

- Read the entire course online or in print which requires a 2-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- Provide required personal information and payment information.
- Complete the MANDATORY Self-Assessment and Course Evaluation.
- Print your Certificate of Completion.

CE Broker reporting

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

Accreditations and approvals

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Activity director

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

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

Medical errors have been defined by Enchev (2015) as "avoidable adverse effects of medical care regardless of whether or not they are obvious or damaging for the patient" (p. 338). The U.S. Food and Drug Administration (FDA) cites the National Coordinating Council for Medication Error Reporting and Prevention (2020) definition of medical errors, noting it goes further when discussing responsibility, stating that medical errors are "any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient, or consumer" (para. 1).

Have you ever considered the impact of medication errors? With today's technology, the patient waiting to undergo a healthcare procedure should feel comfortable that a diagnostic, procedure, or medical error will not occur. However, healthcare providers are humans who are working with human patients; therefore, potential for error remains. Medical errors are estimated to be the third leading cause of death in the U.S. (Kim et al., 2020). Thus, preventing medical errors should remain a major focus for nursing care.

In 1970, the Institute of Medicine (IOM) was formed to provide independent and evidence-based medical advice to healthcare providers, policymakers, and the private and public sectors (Dzau, 2016). In 1999, the IOM released a report, "To Err Is Human: Building a Safer Health System," which is still considered a classic report in healthcare. The report focused on patient safety and building a culture of trust. In the same year, the IOM found there were between 44,000 and 98,000 medical error–related deaths, which added to the importance of the released narrative (Banja, 2020). Banja cited Makary and Daniel from 2016 stating, unfortunately, that number was felt to be low by a factor of 2 or 3. Currently, it is estimated that a preventable medical error occurs 115 times out of 1,000 hospitalizations, averaging approximately $8,000 per admission (Palmer, 2019). The World Health Organization (WHO) in 2019 stated that globally about 4 in 10 patients experience errors and harm during their healthcare, with 80% of these errors being preventable. "The most detrimental errors are related to diagnosis, prescription, and the use of medications" (WHO, 2019b, para 5). Currently, the WHO estimates that $42 billion is spent annually as a result of medication errors (WHO, 2019b).

BUILDING TRUST

Errors during care also endanger the trust between healthcare personnel and patients. Can you imagine having an exploratory abdominal surgery without anesthesia? Sherman Sizemore did just that. He underwent abdominal surgery for 16 minutes without anesthesia because of a major medical error. While undergoing surgery, the nurse anesthetist gave a neuromuscular blocker preventing the patient from being able to move or talk but failed to give the inhalation anesthesia that would have allowed the patient to go unconscious so that pain during the surgery would not be felt. In the end, the patient developed strange ideas of being buried alive or fear of being left alone (thought to be related to this medication error) and committed suicide (Fox News, 2015).

Nursing Consideration: Building rapport and trust with patients is essential when communicating with them to make sure that they are engaged and work collaboratively with the healthcare provider. Confirming each procedure or medication with the patient can help to promote trust and avoid errors.

Evidence-based practice! Millions of patients suffer from errors in patient safety or unsafe healthcare, with approximately 2.6 million people dying annually as a result, especially in low- and middle-income countries (WHO, 2019a).

In 1966, more than 75% of Americans had great confidence in medical leaders; today, only 34% do. Compared with people in other developed countries, Americans are considerably less likely to trust doctors, and only 25% express confidence in the health system (Khullar, 2018). Building trust can be accomplished through transparent communication, disclosing conflicts of interests, promoting shared interests, and allowing patients to easily access their own data. Making sure the patient is informed, engaged, and in charge of their health team allows them to ask questions and make decisions that are in the best interest of their health and demonstrates an acceptance of what they wish (whether this is what the provider considers in the best interest of the patient or not). When patients feel they are working collaboratively with their provider, negative outcomes are less likely to occur.

MEDICATION ERRORS

10 top reasons for medication errors

In 2020, the Institute for Safe Medication Practices (ISMP) published the following top 10 reasons for medication errors and hazards (ISMP, 2020):

1. Selecting the wrong medication from computer screens by simply placing the first few letters of the medication name from which to choose
2. Daily versus weekly administration, especially chemotherapeutics
3. Look-alike labels
4. Misheard communication of actual drug ordered
5. Unsafe "overrides" of medication-dispensing units
6. Unsafe administration of intravenous push medications
7. Wrong route
8. Unsafe labelling by 503B compounders (these facilities produce large batches of medication in an attempt to reduce the unit cost of the medication)
9. Unsafe use of vinca alkaloid syringes
10. 1,000-fold overdoses with zinc, especially with pediatric patients

Evidence-based practice! The Institute for Safe Medication Practices is a nonprofit organization that promotes knowledge related to medication errors to encourage a better understanding of how the error may have occurred from a systems perspective. It does this by collecting data and later disseminating that knowledge to prevent future similar occurrences.

In 2014, more than $1 trillion in cost was associated with medical errors in the U.S. (Zikhani, 2016), with this number quoted as $210,000,000,000 annually (My Medical Score, 2020), and with expectations it would grow each year. Even though reasons for medical errors have been identified, there are also four major areas of concern in the healthcare arena including:

- Diagnostic errors.
- Treatment errors.
- Preventative errors.
- Communication, equipment, or system failures.

Zikhani (2016) wrote that psychology research has further revealed medication errors as either human tasks of schematic or attentional behaviors. Schematic behavior is actions performed reflexively without focused concentration, whereas attentional behaviors require thinking and analysis. Attentional errors from schematic behavior are often a result of distraction, lapse of concentration, or fatigue. Attentional errors typically occur from a lack of experience or education. Controlling errors with increased education is challenging but helpful in guarding against fatigue, distraction, and lack of concentration when administering or prescribing medications.

MEDICATION FIVE RS

Nurses practice medication administration under the concept of the five Rs of medication administration:

- Right drug.
- Right patient.
- Right dose.
- Right route.
- Right time.

The ISMP advances patient safety by increasing knowledge about medication-related errors. ISMP developed the five Rs as a guide to help reduce medication administration errors. Adding additional Rs to this list will not help. The provider must always be aware of these principles, remembering that the protocol does not tell us how to accomplish this goal.

To help reduce medication errors, the ISMP (2018) also developed and adopted interventions that are currently being used in healthcare facilities. These include asking for two separate patient identifiers when receiving telephone medication orders; encouraging staff participation in ongoing medication error prevention education; using prescription or phone pads that remind the provider to ask about patient allergies and include the diagnosis associated with the medication; using dividers to separate look-alike or similar labels of medication; using a stocking program that clearly separates optic from otic solutions; and incorporating teach-back methods with patients when teaching them about specialized monitoring devices. In addition, they also identified high-risk pediatric medications that require dosage calculation.

In 2018, the ISMP identified top medication safety issues that should be addressed by all healthcare providers. These items are based on error rates or national problems (ISMP, 2018) including:

- Labeling and packaging concerns.
- Identifying drug allergies and interactions.
- Vaccination errors.
- Reviewing medication errors related to calculations based on patient weight.
- Investigational safety issues.
- Methotrexate errors.
- Errors associated with residual drugs in intravenous lines.
- Improving safety associated with medication infusion pumps.

Case study 1

A newly graduated nurse is working the evening shift on a busy medical-surgical floor. She has not completed her 12-month residency program when she is asked to stay and help out on the nightshift because of the many nurse call-outs. Although she is tired, she agrees because she wants to make a good impression with her manager. She is assigned the task of giving medications to 10 patients that are all due between 11 p.m. and midnight. She was doing well with the task until she reached her last couple of patients, who were asleep. She knew from report that both would probably awaken throughout the night, so she thought she would wait until they woke up to give them their medication. After all, sleep is as important as medications when you are talking about health. When she left, she forgot to tell the oncoming nurse the medications had not been administered due to running out of time since patients were resting. How many errors can you see in this scenario?

Case study 1 discussion

Although the new nurse wanted to be helpful, care for her patients, and help out her teammates, she was still in a residency program and should not be asked to work overtime (problem one). While giving medications, the nurse ran out of time and failed to administer the medications as prescribed (problem two). The nurse failed to provide report to the next nurse taking care of these patients (problem three). The nurse did not write a report of contact so that the incident could be investigated more thoroughly, allowing identification of system failures (problem four). Although the nurse failed to perform these activities, it was not her fault. Many circumstances combined to cause this failure. Assigning blame discourages reporting and creates additional stress that interferes with the nurse being able to learn from the experience.

Self-Assessment Quiz Question #1

ISMP identifies safe medication practices, including:
a. Developing safe medical products.
b. Developing policies for patient safety.
c. Improving product package labeling.
d. Reviewing medications based on route.

MEDICATION ERROR TERMS

When reviewing medication errors, specific terms are used, and definitions need to be understood, including the following:

- Side effect—a known response from the pharmacological property of a drug
- Adverse reaction—an unexpected harm when the correct process was followed but an event occurred Error—an action that was mistakenly carried out, carried out incorrectly, or not carried out
- Adverse event—an incident where a patient was harmed (may or may not be preventable)

MEDICAL-DEVICE ERRORS

Not all medical errors are medication errors. Medical-device errors have also been shown to cause harm to patients. Although some medical- device errors have been human related—meaning they were caused by a lack of education on the part of the user, taking shortcuts, or simply not following the guidelines or institutions developed for using the device—many devices were developed with design problems. Swayze and Rich (2012) define a medical device as "any item used to diagnose, treat, or prevent disease, injury, or any other condition that is not a drug, biologic, or food" (para. 1).

The development of medical devices is monitored by the U.S. Food and Drug Administration's Food, Drug, and Cosmetic Act (2019a). Newly developed devices are presented to the FDA to be granted clearance for use; however, the FDA depends on the manufacturers to report problems associated with the devices once they are released for use. Postmarket usage and errors are documented through medical-device reporting (Swayze & Rich, 2012).

Consider the true story of Lorraine Bonner (Bonner v. Covidien and Medtronic, Inc., 2019). She underwent a sigmoidectomy (an abdominal surgery), and medical staples were used to close her incision. She was slow to develop return of bowel function and showed leakage from the surgical site around the staples, ultimately resulting in the need for a second surgery because of stapler malfunction. Several months after the event, the manufacturer recalled the stapler device for problems that had been noted with misfiring. Since 2019, the FDA has reported at least 41,000 events, including 366 deaths, related to the stapler misfiring (Jackson, 2019). The surgeon is responsible for removing surgical devices that have failed, but any signs of failure or complications should be reported by the nurse immediately. When medical devices such as infusion systems fail, nurses are instructed to remove the device and tag it with appropriate labels so that it can be evaluated by the institution and reported to the manufacturer.

ERRORS OF OMISSION AND COMMISSION

Two major types of medical errors are errors of omission and errors of commission. Errors of omission occur when acts of care that should have been done or prescribed were not performed. Errors of commission occur when an act of ordered care was incorrectly performed. The Agency for Healthcare Research and Quality (AHRQ; 2019c) defined omission of care as the act of "not doing" or failure to provide care required for a person's health and well-being.

Here are some examples of errors of omission (Carvalho et al., 2020):

- Not performing oral hygiene for patients.
- Not ambulating patients as ordered.
- Not providing education to a patient during hospitalization.
- Failing to communicate a change in patient status to the oncoming nurse

Here are some examples of errors of commission:

- Not checking a PT level before administering Coumadin.
- Failing to provide discharge instructions.
- Not checking allergy status before prescribing or administering medications.
- Giving a patient mismatched blood.

PATIENT SAFETY

Patient safety is a healthcare discipline that focuses on the potential risks and harms occurring in healthcare. The professional in this discipline analyzes data to monitor for trends impacting patient safety, implements new interventions and safety improvements for promotion of safe patient care, develops policies for organizations, and provides education to healthcare professionals about ways to enhance patient safety. The WHO (2019a) analyzed upcoming patient safety issues based on prior data and emerging critical situations. Below are some of the situations creating concerns:

- Medication errors—multiple causes that may lead to patient harm.
- Healthcare-associated infections—nosocomial, poor practices in care.
- Unsafe surgical care procedures—wrong patient; wrong site; complications from surgery.
- Unsafe injection practices—unsafe practices may lead to hepatitis B or C, or HIV.
- Diagnostic errors—ordered incorrectly; performed incorrectly; misinterpreted.
- Unsafe transfusion practices—risk of transfusion reactions or errors with transfusion.
- Radiation errors—overexposure to radiation and cases of wrong patient and wrong site.
- Sepsis—usually not diagnosed in a timely manner.
- Venous thromboembolism—a preventable situation that may occur from lack of anticoagulant medication or nonambulation of a patient.

Self-Assessment Quiz Question #2

The patient safety professional:
a. Reviews data of trends leading to concerns of patient safety.
b. Reports medication concerns to the FDA for investigation.
c. Reviews risk assessment data with the legal department.
d. Analyzes data on why errors occur and who was at fault.

Case study 2

An unfortunately true story concerning an elderly patient awaiting surgery in 2017 occurred when a nurse injected the paralytic anesthetic vecuronium instead of Versed, a sedative. The nurse who administered the medication typed in "VE" in the medication cabinet and selected the first medication name that came up on the list. This act resulted in death of the patient (ISMP, 2019).

Case study 2 discussion

There are many issues with this case study. The nurse failed to check the medication name against the ordered medication and overrode the medication system. Possibly the nurse felt rushed or overwhelmed, or simply did not pay attention. The case went to court, and the nurse was found guilty of reckless homicide. Systems today should be in place to prevent this type of override of systems, but errors can always find a way of happening if proper procedures are not followed (Ross, 2019). Nurses can use a second person to verify a medication or dose before administering any high-risk medication.

PATIENT SAFETY TERMINOLOGY

- Adverse events—refers to incidents resulting in an undesirable experience associated with the use of a medical product or medication in a patient. A serious adverse event can result in life-threatening situations, death, prolonged hospitalizations, permanent disability, birth defects, or medical devices that could cause permanent damage (U.S. Food and Drug Administration, 2016).
- Near misses—refers to situations where patients are exposed to potential danger but do not experience any harm, due to either early detection or luck (AHRQ, 2019b).
- Sentinel events—The Joint Commission International states that sentinel events are types of negative patient outcomes that result in unexpected death or loss of function. "Such an event is called sentinel because it signals a need for an immediate investigation and response" (VanOstenberg & Reis, 2008, para. 3).

Nursing Consideration: Nursing errors may occur because of fatigue, user error, lack of knowledge, or failure to follow policy. The adverse events can be self-limiting or possibly even lead to death. Utmost care and avoidance of interruptions needs to be practiced when administering medications to patients and when using medical devices.

Self-Assessment Quiz Question #3

An example of a sentinel event is:

a. When a person takes medication, they have an allergy to and develops GI upset, including nausea and diarrhea.
b. When a person catches himself after tripping on the electric cord from his IV pole and has a near fall.
c. When a person suffers from loss of fingers from ischemia after a BP cuff does not shut off.
d. When a person develops an addiction to narcotics after having major surgery where narcotics were used for pain control.

Evidence-based practice! Sentinel events are potentially life threatening and can be associated with a patient's health status, or they may be surgical errors such as wrong site, wrong procedure, or wrong patient. When reviewing these events, healthcare organizations need to promote a culture of safety to encourage early identification of potential problems before they occur and ensure that people who are reporting events know that a thorough blameless investigation will occur.

Case study 3

A 78-year-old male is admitted to the rehabilitation unit with a diagnosis of failure to thrive. He lost approximately 40 pounds over the past three months despite receiving tube feedings four times daily. When the nurse reviewed the admitting orders, the patient was ordered a soft diet, but no orders for tube feedings were found. The nurse contacts the provider for clarification regarding the diet. What type of error or event is this?

Case study 3 discussion

The error was considered a near miss, as the problem was identified before any harm actually occurred to the patient. Often items are left out when writing admitting or discharge orders. To promote the health and safety of the patient, it is always good practice to review each order and call the provider should there be any questions or misunderstandings (although it may be stressful at times to question orders).'

Case study 4

A 55-year-old female was assessed for control of her blood pressure. She was taking Valsartan 160 mg. Upon exam, her BP was 122/66, but her heart rate was 126. Although asymptomatic, she was prescribed metoprolol to help decrease the BP and, specifically, to decrease the elevated heart rate. She was scheduled for follow-up in six months. After four months, she returned to the office, stating she was dizzy and having episodes of near syncope. Her BP was 92/46, and her heart rate was 42. She was instructed to go to the emergency department for hydration. While in the ED, hydration was provided intravenously. Her BP came up to 120/100, but her heart rate remained in 40s and 50s. The ED provider asked the patient about any changes in her diet and found that she had been a heavy drinker of caffeinated sodas but had recently given this practice up in hopes of losing weight. She was taken off the metoprolol, and her heart rate came back to baseline in the 60s.

Case study 4 discussion

What happened and what went wrong? The ultimate etiology of the patient's elevated heart rate was related to her intake of caffeinated beverages. This was never discussed with her primary provider. Also, when adding blood pressure medications, it would be best practice to follow up in one month, not six months. There were a few reasons this incident happened, but if proper systems had been in place, the outcome could have been different and saved the patient the cost of an ED visit, unneeded medications, and the physical suffering that occurred. What this case study demonstrates is that the provider should be more thorough in assessment, the patient should have provided information about the caffeine she was consuming, and there should have been an earlier follow-up, especially considering new medications were added to the patient's profile.

CULTURAL CONSIDERATIONS AND MEDICAL ERRORS

Culture may be defined as the collective thoughts and feelings or personal identification shared by a specific group that may encompass ethnic, racial, religious, geographic, and social components. The habits of healthcare or medication usage can be influenced by a person's culture. However, the healthcare provider also has a specific cultural influence that can impact how medications are used.

Cultural competence in healthcare refers to the ". . . ability of systems to provide care to patients with diverse values, beliefs and behaviors, including the tailoring of healthcare delivery to meet patients' social, cultural, and linguistic needs. Being a culturally competent health system requires behaviors, attitudes, and policies that support effective interactions in cross-cultural situations" (Agency for Healthcare Research and Quality, 2019b).

Cultural competence and healthcare disparities have been an increasing problem, with renewed awareness during the time of the COVID-19 pandemic, because trust in healthcare providers may be influenced by culture. Some cultural groups may be reluctant to seek care or feel that their care will not be provided without error. For example, the many in the African American population have a lack of trust in healthcare, most likely related to the Tuskegee syphilis study, which was conducted from 1932 to 1972 (Centers for Disease Control and Prevention [CDC], 2020), or Henrietta Lacks's story. A human cell line was taken from Ms. Lacks without her knowledge and used in various medical research studies (Johns Hopkins Medicine, n.d.).

Culturally, many in the LGBTQIA+ population feel unaccepted by healthcare providers at times, thus adding to the problem of medication errors (Whitehead et al., 2016). When people are not comfortable with the provider, they are less likely to ask questions about medications, leading to possible safety errors. A lack of education on the special needs of the LGBTQ population also compounds the issue because limited information has been shared on this population in medical and nursing schools in the past. Also, consider patient populations that may be using herbs or supplements that can interfere with prescribed medications, as well as those with language barriers or low health illiteracy, which can all contribute to medication errors. The Agency for Healthcare Research and Quality (2019a) stated that when cultural incompetence is present, lack of patient engagement is present. If patients miss appointments, do not understand instructions, or simply cannot communicate their needs to the healthcare provider, these cultural issues will impede care and lead to potential medication errors (Agency for Healthcare Research and Quality, 2019a). The need for additional research on these vulnerable groups has been identified as a goal with Healthy People 2030.

SAFETY NEEDS OF SPECIAL POPULATIONS

Joszt (2018) identified special populations at risk for medical errors:

- The chronically ill.
- Unhoused or low-income individuals.
- Those with specific disparities based on geographical areas.
- LGBTQ population.
- Geriatric and pediatric patients.

Chronically ill patients

The chronically ill spend more time in the healthcare system; thus, the risk of medication error and patient safety risks increase. The chronically ill patient often finds it difficult to access healthcare, thus delaying necessary treatment. In addition, they may be taking multiple medications that increase the risk of medication error related to drug–drug interactions (Joszt, 2018).

Unhoused/low income

The unhoused and low-income populations often wait until their health deteriorates significantly before seeking care. Unhoused individuals may have psychiatric or abuse disorders, limited financial resources, lack of transportation, or trust concerns that discourage access to the healthcare system or prevent patient safety based on the patient not being compliant with therapy. Low-income patients may have comorbidities that make treatment difficult (Joszt, 2018). In 2017, the U.S. Department of Housing and Urban Development reported that approximately 554,000 individuals were unhoused on any given night (Joszt, 2018). Being on the streets may prevent treatment from being prescribed or taken as instructed, leading to errors. Also, unhoused patients may not report complete histories, making safe medication decisions difficult. They may often be lost to follow-up, again creating a major patient safety concern.

Geographical disparities

Disparities based on geographic location can be related to issues with access to safe healthcare. Citing the New York Times, Joszt (2018) stated that in 2010, 85 rural hospitals had to close, which contributed to the concern for healthcare in rural areas. Taylor (2019) wrote that the lack of Medicaid expansion in certain states, along with healthcare provider shortages, are common in the South and often affect African American populations.

LGBTQ populations

Joszt (2018) wrote that one out of five LGBTQ individuals has avoided healthcare encounters for fear of facing discrimination. Often this population has reported mental health issues such as depression, anxiety, substance abuse, and suicidal tendencies. The female transgender population may also be taking estrogen obtained from the streets or online so that they can take higher doses than recommended to assist with breast augmentation (Chalmers, 2020). If this information is not shared with their healthcare provider, it can potentially lead to major safety concerns related to prescribing or detection of side effects.

Geriatric and pediatric patients

Pharmacokinetics is important when thinking about these two age groups. Pediatric dosages are often calculated based on kg/mg formulas, which creates potential calculation errors. In addition, Florida has a high percentage of elderly citizens, and safety consequences can endanger their lives more readily, so this age group warrants particular safety emphasis. Body weight, distribution, absorption, and elimination are important factors to consider for the elderly, making them at risk for medication errors and patient safety risks when prescribing medications. Also, possible constraints on income may not allow the elderly to purchase needed medications, or they may try to "stretch out the pills" by taking less than prescribed.

Lastly, the pharmacy should be aware of packaging issues for the elderly and ask if there are any mobility issues that would prevent the patient from opening childproof caps or blister packages. Some elderly patients may have memory problems or cannot report a complete history of medications, supplement use, or diet that could influence their safe use of medications. Special instructions, written reminders, caretaker education, or more frequent follow-up may be needed to avoid the risk of consequences.

Patients with mental health and psychiatric concerns

Grasso and colleagues (2007) identified several reasons that medical errors may occur with patients who have psychiatric and mental health concerns. These concerns are still relevant today. The reasons for potential medical errors are many, including:

- The large number of patients with a mental health disorder that seek care in various facilities where medical records are not carried forward to the receiving facility.
- A large number of prescriptions written by both mental health providers and primary care providers.
- Use of psychiatric medications in pediatric patients with significant side effects or even possible suicide attempts.
- Possible use of psychiatric medications to treat behavioral disturbances in patients with dementia (often related to the side effects of heart- related events).
- Complementary or alternative medications used in addition to prescription medications that may create drug–drug interactions.
- Fiscal factors that may increase the risk of error.

Grasso and colleagues (2007) stated, "Increased fiscal pressure to curb Medicaid costs and to increase private insurers' shareholder earnings is a risk factor for medical errors of omission. Formulary restrictions diminish medication access for prescribers, which increases the possibility of suboptimal care or overt harm" (p. 46). Especially when giving hospital discharge instructions, interactions with patient should include questions about the patient's ability to afford and access prescribed medications and treatment supplies.

Other populations who should be considered are patients with developmental disabilities, surgical patients, patients with alcohol and/or drug abuse disorders, and patients with sensory deficits or rehabilitation needs—as they may all have difficulty communicating with the provider.

Solutions offered by the AHRQ (2019b) to promote safety include language assistance and use of cultural brokers, along with cultural competence training. Use of an interpreter can also help when language barriers are present. Staff may be multilingual, and some facilities have people trained in various languages, including sign language, to assist providers in ensuring information is received appropriately and questions can be answered. Another solution is the use of cultural brokers who are trained to serve as "partners" for the patients and providers to help mediate between traditional medicine and the health beliefs and practices of a specific culture. Since providers cannot be knowledgeable about all cultures, a cultural broker can be invaluable in this particular setting (AHRQ, 2019b).

Self-Assessment Quiz Question #4

Cultural considerations to explore when striving to prevent medical errors include:

a. Asking about possible herbs patients take that may interfere with medications.
b. Asking about the health of the patient's first-degree relatives.
c. Seeking an interpreter to make sure medication errors are reviewed.
d. Obtaining a nutritionist to show the patient the proper foods and drinks they should have.

ETHICAL CONSIDERATIONS ASSOCIATED WITH MEDICAL ERRORS PER THE AMERICAN NURSES ASSOCIATION (ANA)

Medical errors are highly preventable and have been addressed by the American Nurses Association (ANA). Data gathered from multiple countries "showed that the U.S. had the highest number of preventable deaths in comparison to nine other countries, with France and Australia being the lowest" (Sorrell, 2017, para. 1).

The American Nurses Association wrote that medical errors could be related to four primary ethical principles. The following principles need to be considered when reviewing ethical situations related to medication safety and error prevention (Bonney, 2013; Sorrell, 2017):

- Autonomy and right to self-determination.
- Beneficence and nonmaleficence.
- Disclosure and right to knowledge.
- Veracity.

Autonomy and right to self-determination

This principal guides healthcare providers to follow moral and ethical rules to make sure the patient's privacy is protected, obtain informed consent before treatment; and assist patients/families to make important healthcare decisions; respecting the patient's decision even when the provider may disagree.

Example: Instructing a patient on the potential side effects of a vaccination. The provider knows this is needed to enable the patient to make an informed decision about the vaccination. After discussing side effects, if the patient refuses the vaccination, the provider should accept the patient's decision without trying to coerce the patient to change their mind.

Beneficence and nonmaleficence

This principle attempts to promote what is best for the patient while minimizing the risks as much as possible. Healthcare providers have the ethical and moral duty to try to prevent harm to the patient when possible. Nurses have an ethical duty that is clearly identified in the Code of Ethics from the National Council of State Boards, Use of Code of Ethics, and the Nurse Practice Act (Gaines, 2022.

Example: Knowing that a needed vaccination may cause pain at the injection site or that residual side effects of a low-grade temperature or muscle joint pain may occur from the vaccination is the risk part of a benefit versus risk ethical decision. However, long-term immunity will benefit the patient by helping to prevent a serious condition after the vaccination. The beneficence that is shown by educating the patient helps to prevent errors by making the patient a partner in their own care.

Disclosure and right to knowledge

This principle mandates that a patient have full knowledge about a planned treatment option. Time is allotted for the patient to discuss what is known about the treatment, and nothing should be disguised or held back from the patient when reviewing the planned treatment. Also, all treatments should be based on the strongest evidence-based practice possible, putting ownership of staying abreast of new information that can be shared with the patient on the provider.

Example: When agreeing to a planned vaccination, the patient should be told of adverse effects (even those with low percentage risks) that have been noted in those who have received this vaccination, such as Guillain–Barré syndrome. If all information about the vaccine is not disclosed, the patient may feel the provider is hiding something or "caused" the side effects due to poor provider skill, thus placing the provider and the organization at risk for liability.

Veracity

Veracity is displayed when the provider fosters the patient's ability to understand the information provided in a comprehensive, accurate, and objective manner. Veracity helps to seal the patient–provider relationship based on trust. It establishes a trusting and empathetic rapport between the patient and the provider.

> Example: When the patient received a vaccination, mild side effects were noted as the provider had described. However, no major health issues arose. The patient was thankful when the provider called them the following day to check on how they were feeling.

Evidence-based practice! Healthcare organizations are complex and vulnerable to patient safety errors because of their decentralized and fragmented systems. Thus, when negative patient safety outcomes are present, they often have serious consequences for the patient, the organization, and society.

Self-Assessment Quiz Question #5

Low-income patients may encounter disparities in healthcare related to:

a. Low insurance premiums.
b. Taking multiple medications.
c. Lack of transportation.
d. Concerns regarding pharmacokinetics.

MISCOMMUNICATION BETWEEN NURSES AND PHYSICIANS

Since the beginning of nursing history, nurses and physicians "have shared a complicated relationship" (Amudha et al., 2018, para 4). The working relationship has been influenced by social status, gender (most nurses being female and most physicians being male), and perceived authority. Often physicians demonstrate an authoritarian attitude—they are used to writing orders and telling patients what must be done. Communication skills among physicians and nurses have been referred to as exhibiting an imbalance of hierarchical power (Howley, 2018). Lagasse (2018) wrote that occasionally the hospital hierarchy can place nurses at a "power disadvantage," which can contribute to nurses feeling fearful of questioning physicians about potential medical errors. The power disadvantage can lead to nurses feeling their thoughts and concerns are less valuable than the thoughts of physicians who practice within the organization. Lagasse wrote that nurses and physicians communicate differently, further stating that some nurses do not directly ask or state their needs, which can confuse physicians, who also may not ask for clarification on what is being said, leading to possible medical errors. Many physicians prefer facts only for a quick summary of what is happening in a specific situation, whereas nurses tend to prefer more holistic, in-depth conversations to understand what is happening. These different types of communication styles can make nurses feel they are not being listened to or make the physician appear aloof (Amudha et al., 2018).

In nurses' official training, little is taught about communication skills with physicians. Nurses focus on communicating with patients, but little is said about communication with peers and other healthcare providers. Howley (2018) wrote that some factors related to poor communication among healthcare providers are related to patient load, individual personalities, and—again—the hierarchical imbalance between nurses and physicians. However, when this imbalance is pointed out to the organization and to healthcare providers, communication improves. It has also been pointed out that many people in healthcare have various cultures, a situation that also contributes to miscommunication. This is an area that needs to be incorporated into nurses' (and physicians') training so that medical errors based on miscommunication can be prevented.

Wang and colleagues (2017) reported that nurse–physician miscommunication can also lead to decreased patient satisfaction; increased healthcare costs; and, most important, deleterious effects on patient safety. In addition, poor communication can lead to issues in nursing such as nursing burnout from work dissatisfaction, decreased autonomy, and increased turnover rates—all of which can suppress the quality of care and patient safety.

Amudha and fellow researchers (2018) conducted a qualitative study examining factors that influenced the "communication gap" between nurses and other medical providers. Themes that developed included the following:

- Lack of knowledge regarding a specific specialty: Nurses were unable to answer questions being asked by the physician.
- Lack of experience: Nurses did not have training on specific procedures.
- Problems with time management skills.
- Theoretical versus practical training: Different orders maybe written for the same procedure by various physicians, such as for wound care.
- Perception of work environment, being short staffed, or being underappreciated.
- Power of authority: Physicians may be seen as "bossy."
- Personality traits: Some physicians are perceived as loud or soft spoken.
- Mood variations: There are various ways that physicians handle stress.
- Handwriting skills.

This study demonstrated how nurses perceived barriers to communication and helped to identify strategies to enhance effective communication, such as the need for additional training, enhancement of the work environment, and the importance of collaboration among all healthcare providers.

Self-Assessment Quiz Question #6

Miscommunication among physicians and nurses can lead to:

a. Decreased patient satisfaction.
b. Decreased healthcare costs.
c. Increased autonomy.
d. Improved quality of policies.

Always seek clarification on words, phrases, or other items that are not understood. Where barriers may exist, contemplate whether a family member or assistive device is needed for people who are hearing impaired or speak a different language. Another consideration of communicating effectively is thinking about the mode of communication. While working with various modalities such as emails, telehealth, telephone, or face-to-face visits, think how this may impact communication. Because of the COVID-19 pandemic, more patient visits are being done via telehealth. What if you were elderly and did not know how to use telehealth via a computer? What if you had vision issues that prevented you from participating in a telehealth conference? Confirm the patient's comfort level before suggesting a mode of care delivery. Also, do not assume that the person is literate or is able to read English, even if they are speaking English.

One additional factor to consider when improving communication skills is avoiding nonstandard abbreviations. Time is a valuable commodity in healthcare. Providers look for abbreviations to help decrease the time it takes to write orders,

especially for medications. However, because of legibility issues and transfer of care, abbreviations can be problematic. The Joint Commission has issued a list of abbreviations that should not be used (see Table 1).

Table 1. Official "Do Not Use" List of Abbreviations

Abbreviation	Rationale	Corrective Action
U, u (unit)	Mistaken for 0 (zero), the number 4, or cc	Write out "unit"
IU (international unit)	Mistaken for IV (intravenous) or the number 10	Write out "international unit"
Q.D., QD, q.d., or qd (daily) Q.O.D, QOD, q.o.d., or qod.	Mistaken for each other Period after Q interpreted as I and O mistaken for I	Write out "daily" Write out "every other day"
Trailing zero (X.0 mg) Lack of leading zero (.X mg)	Decimal point is missing	Write "X mg" Write "0.X mg"
MS MSO4 and MgSO4	Can mean morphine sulfate or magnesium sulfate Confused for one another	Write "morphine sulfate" Write "magnesium sulfate"

From The Joint Commission. (2019). Official "Do Not Use" List https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/patient- safety/do_not_use_list_9_14_18.pdf

MEDICATION RECONCILIATION

"The Joint Commission defines medication reconciliation as the process of comparing a patient's medication orders to all of the medications that the patient has been taking" (Smith et al., 2018, para. 1). It has been suggested that 66% of medication errors occur while the patient is being admitted to or discharged from a facility or during outpatient visits. Of this figure, 25% of the medication errors occur when medications are overlooked (Smith et al., 2018). However, Kelly (2016) cited research done by Rand, who stated that 7% to 10% of patients are incorrectly identified. This occurrence is completely preventable. Although errors may occur when incomplete medication lists or incorrect patients are identified, biometric markers have been suggested as an intervention to enable all of a patient's medical data to be found via one easy record retrieval. This would help the admitting team, regardless of where they work, prevent unnecessary medical errors.

The WHO (2020) wrote that errors in medication prescribing and administration occur when providers are fatigued; a poor working environment is present; providers are frequently distracted or interrupted; there are staff shortages; monitoring practices are ignored; prescribing/transcribing errors occur because of hurriedly writing orders; and providers' lack of technological knowledge.

Self-Assessment Quiz Question #7

Medication reconciliation is best defined as:

a. Reviewing medications for outdated supplies.
b. Reviewing the cost of medications for patients.
c. Reviewing the side effects of each medication.
d. Reviewing all medications that the patient is taking to prevent potential errors.

THE NATIONAL COORDINATING COUNSEL FOR MEDICATION ERROR REPORTING AND PREVENTION

The National Coordinating Counsel for Medication Error Reporting and Prevention's (2020) goal is to increase awareness of medication errors through open communication and reporting while evaluating and developing new prevention strategies. The organization categorizes medication errors as "no error"; "error, no harm"; "error, harm"; and "error, death." With these definitions, the following scale categories were developed:

A. Circumstances that may lead to error
B. Error occurred but did not reach the patient
C. Error occurred with patient but did not cause harm
D. Error occurred, with patient requiring ongoing monitoring to see if harm would result
E. Error occurred that may have resulted in temporary harm to patient, requiring interventions
F. Error occurred that may have resulted in temporary harm and required initial or prolonged hospitalization
G. Error occurred that may have contributed to permanent patient harm
H. Error occurred that required intervention to sustain life
I. Error occurred that may have contributed to or resulted in the patient's death

It is widely accepted that when an error becomes known, the provider should be honest and admit the mistake to the patient and family. Even though patients and families may at first be angry, they usually are thankful the mistake was made known, especially if there is discussion on how the mistake will be prevented in the future. Providing a sincere apology and saying "I'm sorry" does help. Some providers, however, hesitate to admit a mistake for fear of reprisals, professional rejection, and/or liability. Although this can be a stressful time, "apology laws" are found to be helpful in making sure providers are transparent about the medical care received. In addition to the District of Columbia and Guam, 36 states now have apology laws, which prohibit a provider's statement of apology or concern from being used against them in a courtroom as an admission of guilt (Morton, 2020).

Nursing Consideration: When patient errors happen, it can be challenging and stressful for the individuals involved. Providing a sincere apology is helpful in decreasing fear and helps to make amends for what happened. Providers should be aware that in many states, apologies cannot be used in a court of law to suggest personal liability. Errors must be reported for changes to be made to support nurses in avoiding future errors. Reporting is a legal requirement and an ethical responsibility. Nursing supervisors can encourage reporting and error prevention by praising the nurse, offering support for the guilt or remorse the nurse may feel, and helping to identify contributing factors that may be minimized in the future.

FOOD AND DRUG ADMINISTRATION

One safeguard to help prevent medical errors is the U.S. Food and Drug Administration. The agency reviews medications before they are approved for marketing, making sure the product is designed to help prevent errors through proper labeling, spelling, packaging, and appropriate design. The medication is reviewed to see how it is labeled, packaged, and supplied in regard to strength. In addition, patient instructions are reviewed to make sure they can easily be understood by the consumer. After the medication is released, the FDA monitors drug reports to look for possible trends of concern. For example, the FDA has required changes in label design after medications containing the same drug, but different concentrations, created confusion that resulted in medication errors (FDA, 2019b).

LESSONS LEARNED: WAYS TO PROMOTE MEDICATION SAFETY

Research and experience have provided knowledge on ways to promote medication safety, including the following:

- Use generic names for medications.
- Prescribe medications individualized to the patient.
- Collect complete medication histories.
- Take precautions with high-risk medications.
- Familiarize yourself with medications given.
- Apply the five Rs.
- Communicate clearly, both verbally and in writing.
- Double-check medication labels, especially high-risk medications.
- Encourage patient participation.
- Learn from others.
- Minimize distractions during medication preparation and administration.

Patients also have an obligation when taking medications. They should always know the name and dosage of the medication they are taking, common side effects, and who they should contact if they have questions about their medication. In many pharmacies, pharmacist consultations are available so that patients can ask questions if needed. Should patients require hospitalization, all medications should be brought with them for review.

Self-Assessment Quiz Question #8

Promotion of medication safety includes:

a. Making sure the patient knows the names of and can spell each medication they are taking.
b. Making sure the patient receives all medications ordered from the pharmacy in a timely manner.
c. Making sure the patient understands the medications they are taking (to prevent possible interactions or side effects).
d. Making sure the patient leaves all medications at home when seeing their provider so that they do not get misplaced or lost.

FLORIDA MANDATES: REPORTING ERRORS

Florida mandates sentinel events be reported to The Joint Commission. Florida's Comprehensive Medical Malpractice Reform Act of 1985 (Florida Senate, 2021) mandates that healthcare organizations implement a risk management and reporting system to collect data on potential and real errors. Oversight is provided by the Florida Agency for Health Care Administration (AHCA), which also ensures that each licensed healthcare facility has a risk manager who can plan programs and evaluate the current system for potential risks related to patient safety. These risks go beyond those related to medication, as they also consider medical devices, procedures (especially surgical procedures), and other types of injuries (Florida Senate, 2021).

Florida statutes mandate reporting of sentinel events within three days to one's internal organization. There are two types of reports (Code 15 and annual reports) that are developed and employed by licensed facilities to report adverse events. Code 15 reports are due within 15 days of an identified error. The following are examples events requiring Code 15 reports:

- Unexpected death of a patient.
- Brain or spinal damage.
- Surgical procedure on the wrong patient.
- Wrong-site surgical procedure.
- Surgical procedure that is medically unnecessary.
- Surgical damage resulting from a scheduled planned surgery where the damage was not expected.
- Procedures performed to remove unplanned foreign objects remaining postoperatively.

Annual reports provide data maintained by the facility showing the number of Code 15 reports completed, types of adverse events and the categories of these errors, along with any pending or completed malpractice claims (F.S. Title XXIX, Chp. 395-10974). Actions taken to investigate the events and to remedy any contributing factors are also included (Jones & Slosburg, 2015).

MANDATORY EDUCATION

Renewal for RN and LPN licenses in Florida requires two continuing education units (CEU) hours every two years on medical-error prevention. Advanced practice nurses are mandated to earn two CEU hours every two years on medical error prevention, along with three hours on safe and effective prescription of controlled substances (Lippincott NursingCenter, n.d.).

Nursing Consideration: Mandates for licensure renewal vary from state to state. Nurses must be aware of what continuing education credits are required for each state of licensure by consulting that state's board of nursing. Continuing education providers must be approved by the board.

Self-Assessment Quiz Question #9

Renewal for LPN and RN nursing licensure in Florida requires:

a. One CEU every two years.
b. Two CEUs every two years.
c. Three CEUs every three years.
d. Four CEUs every year.

Self-Assessment Quiz Question #10

Safe medication administration requires using the five Rs, which include the:

a. Right to refuse all medications because of potential side effects.
b. (correct) Right medication given to the right person based on the correct order.
c. Right to change the route when concerned about side effects of the medication.
d. Right to document all issues that may occur from medication intake.

Conclusion

Medical errors affect everyone—patients, providers, pharmacists, physical therapists, healthcare administrators, and anyone else who has contact with the patient. Errors involve not only medications but also surgery, the development of incorrect diagnoses, laboratory results, lack of proper documentation, failure to review laboratory result (or not having results available), poor communication (or lack of communication), poor staffing issues, poor attention to details, lack of adherence to policies or procedures, lack of consideration of cultural issues such as language barriers, patient reluctance to discuss alternative therapies, and lack of trust in the provider. Adhering to the five Rs, minimizing interruptions, and ensuring proper education of all healthcare professionals can greatly reduce the risk of medical errors. Increasing knowledge and awareness enhances the provider's mantra of "Do no harm," which is ethical, moral, and—most important—the right thing to do.

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PREVENTING MEDICAL ERRORS FOR FLORIDA NURSES

Self-Assessment Answers and Rationales

1. **The correct answer is C.**
Rationale: To prevent potential confusion and promote patient safety, the ISMP reviews product packaging labeling, looking at similar labels or packaging.

2. **The correct answer is A.**
Rationale: The patient safety professional's role is to promote patient safety and improve the culture of safety by collaborating with all personnel while reviewing trends that may cause patient harm.

3. **The correct answer is C.**
Rationale: Sentinel event is defined as an unanticipated event resulting in death or serious physical or psychological harm.

4. **The correct answer is A.**
Rationale: Cultural beliefs can interfere with patient safety if the patient is using herbs or plants that may interfere with prescribed medications. Also, herbal supplements may not have rigorous studies to indicate their quality or usefulness for specific medical conditions.

5. **The correct answer is C.**
Rationale: One area of concern for healthcare disparities seen in low-income populations is the lack of access to healthcare, whichcan be related to lack of transportation. Low-income patients often do not have insurance due to high premiums. Various medications and pharmacokinetics do not influence healthcare disparities.

6. **The correct answer is A.**
Rationale: Poor communication among physicians and nurses leads to increased healthcare costs, decreased autonomy, poor quality of care, and decreased patient satisfaction.

7. **The correct answer is D.**
Rationale: Medication reconciliation is the process of listing all medications a patient is taking, including the dose, route, frequency,and name of medication, to prevent medication errors with prescribing.

8. **The correct answer is C.**
Rationale: Promotion of medication safety includes making sure the patient understands what medications they are taking and possible side effects associated with the medications. Patients do not need to know how to spell the names of the medications they are taking but should always bring their medications with them when seeing their healthcare provider.

9. **The correct answer is B.**
Rationale: RN licensure in Florida requires two CEUs every two years.

10. **The correct answer is B.**
Rationale: The five Rs of medication administration are the right patient, the right drug, the right dose, the right route, and the right time.

PREVENTING MEDICAL ERRORS FOR FLORIDA NURSES

Final Examination Questions

Select the best answer for each question and mark your answers on the Final Examination Answer Sheet found on page 145 or complete your test online at **EliteLearning.com/Book**

31. In 2014, more than ________ of costs were associated with medical errors in the U.S.
   a. $100,000
   b. $1 million.
   c. $1 billion.
   d. $1 trillion.

32. Which of the following is NOT one of the four major areas of concern related to medical errors?
   a. Patient errors.
   b. Diagnostic errors.
   c. Treatment errors.
   d. Preventative errors.

33. Which of the following is NOT one of the five Rs for medication administration?
   a. Right room.
   b. Right drug.
   c. Right time.
   d. Right route.

34. Who monitors the development of medical devices in order to provide clearance?
   a. CDC.
   b. FDA.
   c. President of the U.S.
   d. Manufacturer.

35. What is the term for negative patient outcomes that result in unexpected death or loss of function?
   a. Near-miss event.
   b. Adverse event.
   c. Policy violation.
   d. Sentinel event.

36. What is medication reconciliation?
   a. The process of ensuring the five Rs are appropriately used.
   b. Transcribing verbal orders from physicians.
   c. Ensuring medications are reviewed upon discharge.
   d. Comparing a patient's medication orders to those the patient has been taking.

37. What is an "apology law"?
   a. A law that allows a physician or nurse apology to be used in court.
   b. A law that protects a provider's apology from being used as an admission of guilt.
   c. A law that requires an apology be formally issued to a patient and/or their family.
   d. A law that requires nurses receive apologies when poor practices are implemented.

38. The ISMP in 2020 published the top 10 reasons for medication errors, which include:
   a. Wrong patient.
   b. Wrong surgical site.
   c. Poorly designed pain control devices.
   d. Wrong route.

39. Which of the following involves respecting the patient's decision?
   a. Autonomy.
   b. Beneficence.
   c. Nonmaleficence.
   d. Veracity.

40. (Who monitors medical device usage for safety compliance?
   a. CDC.
   b. FDA.
   c. Hospital administration.
   d. Manufacturer.

Course Code: ANCCFL02PF

Recognizing and Reporting Nurse Impairment in the Workplace for Florida Nurses (Mandatory)

2 Contact Hours

Release Date: August 9, 2022

Expiration Date: January 19, 2025

Faculty

Adrianne E. Avillion, D.Ed, RN, is an accomplished nursing professional development specialist and published healthcare education author. She is the owner of Strategic Nursing Professional Development, a business devoted to helping nurses maintain competency and enhance their professional growth and development. Dr. Avillion earned a doctoral degree in adult education and an MS from Penn State University, along with a BSN from Bloomsburg University. She has served in various nursing roles over her career in both leadership roles and as a bedside clinical nurse. She has published extensively and is a frequent presenter at conferences

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

Reviewer

Mary C. Ross, RN, PhD, 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 in mental health in-patient care and supervising nursing personnel.

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

Course overview

Healthcare professionals are at risk for substance use disorders and impairment. A nurse with a substance use disorder and impairment is a healthcare risk for safe patient care, as well asa personal healthcare risk. This mandatory Florida course describes the significance of the problem as well as the signs and symptoms of substance use disorders and impairment in nurses. Employer strategies to recognize and address the problem are provided. This course meets the Florida Board of Nursing mandatory continuing education requirement of a 2-hour course on recognizing impairment in the workplace, which must be completed by licensed nurses every other biennium.

Learning objectives

After completing this course, the nurse should be able to:

- Define words and terms related to substance use disorder and impairment according to Florida Statutes.
- Describe the current state of nurse impairment and substance use disorder and their impact. Differentiate between myths and truths as they relate to substance use disorder.
- Recognize the signs of impairment in colleagues as well as in oneself. Describe employer initiatives to promote safety.
- Discuss interventions to help the nurse dealing with impairment.
- Explain the role of the Intervention Project for Nurses in helping nurses recover from substance use disorder and impairment.
- Explain Florida's laws and rules as they pertain to impaired practice.
- Describe the process of reporting or referring to the nurse functioning under impairment. Discuss treatment strategies for the nurse who is dealing with impairment.

How to receive credit

- Read the entire course online or in print which requires a 2-hour commitment of time.
- Complete the self-assessment quiz questions which are at the end of the course or integrated throughout the course. These questions are NOT GRADED. The correct answer is shown after you answer the question. If the incorrect answer is selected, the rationale for the correct answer is provided. These questions help to affirm what you have learned from the course.
- Depending on your state requirements you will be asked to complete either:
  - An affirmation that you have completed the educational activity.
  - A mandatory test (a passing score of 70 percent is required). Test questions link content to learning objectives as a method to enhance individualized learning and material retention.
- Provide required personal information and payment information.
- Complete the MANDATORY Self-Assessment and Course Evaluation.
- Print your Certificate of Completion.

CE Broker reporting

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

Accreditations and approvals

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

Individual state nursing approvals

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

Activity director

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

Disclosures

Resolution of conflict of interest

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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

Angie is a 23-year-old registered nurse who obtained her license a little over a year ago. Angie works hard and is eager to learn. She is also fun-loving and has a reputation among her colleagues as someone who "really likes to party." It is spring break and the Florida beaches are filled with college students who are also ready to party. Angie is scheduled to begin her shift at 11:00 this evening. When she arrives, she is giggling and tells her colleagues that she has been having an "awesome" time partying with some of her friends who are now seniors at the same college she attended. Angie's breath smells faintly of alcohol. "I'm still feeling a little 'buzzed,' but I can handle it. Its' nothing like I used to feel when I was still in school! A little coffee will fix me right up!"

The preceding scenario is an example of a nurse attempting to function under the influence of mind- or mood-altering substances. The fact that the nurse does not find it problematic to go to work feeling "buzzed" only worsens the situation. This is a serious problem among nurses and other healthcare professionals. Nurses must be able to recognize the signs and symptoms of impairment and their responsibilities associated with how to intervene. Florida nurses must be aware of the laws governing practice as it relates to impairment and what help is available to recover from impairment. These factors not only help to protect vulnerable patients but also ensures that colleagues struggling with substance use disorders and impairment receive assistance.

DEFINITIONS

The 2021 Florida Statutes defines the following terms (The Florida Legislature, 2021a). These statutes refer to the Florida Department of Health and include reference to any nurse licensed in the State of Florida.

- **Consultant**: The individual or entity who operates an approved impairment practitioner program pursuant to a contract with the department and who is retained by the department.
- **Evaluator**: A state-licensed or nationally certified individual who has been approved by a consultant or the department, who has completed an evaluator training program established by the consultant.
- **Impaired Practitioner**: A practitioner with an impairment.
- **Impaired Practitioner Program**: A program established by the department by contract with one or more consultants to serve impaired and potentially impaired practitioners for the protection of the health, safety, and welfare of the public.
- **Impairment**: A potentially impairing health condition that is the results of the misuse or abuse of alcohol, drugs, or both, or a mental or physical condition that could affect a practitioner's ability to practice with skill and safety.

- **Inability to Progress**: A determination by a consultant based on a participant's response to treatment and prognosis that the participant is unable to safely practice despite compliance with treatment requirements and his or her participant contract.
- **Material Noncompliance**: An act or omission by a participant in violation of his or her participant contract as determined by the department or consultant.
- **Participant**: A practitioner who is participating in the impaired practitioner program by having entered into a participant contract. A practitioner ceases to be a participant when the participant contract is successfully completed or is terminated for any reason.
- **Participant Contract**: A formal written document outlining the requirements established by a consultant for a participant to successfully complete the impaired practitioner program, including the participant's monitoring plan.
- **Practitioner**: A person licensed, registered, certified, or regulated by the department.
- **Referral**: A practitioner who has been referred, either as a self-referral or otherwise, or reported to a consultant for impaired practitioner program services, but who is not under a participant contract.
- **Treatment Program**: A department-approved or consultant-approved residential, intensive outpatient, partial hospitalization, or other program through which an impaired practitioner is treated based on the impaired practitioner's diagnosis and the treatment plan approved by the consultant.
- **Treatment Provide**r: A department-approved or consultant-approved residential licensed or nationally certified individual who provides treatment to an impaired practitioner on the practitioner's individual diagnosis and a treatment plan, approved by the consultant.

The phrase substance use disorder (SUD) is defined by the most recent edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* as a "cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues using the substance despite significant substance- related problems" (American Psychiatric Association, 2013, p483).

TERMINOLOGY CHANGES

On January 9, 2017, a document entitled C*hanging the Language of Addiction* was published by the Office of National Drug Control Policy from the Executive Office of the President (2017). The document addresses terminology related to substance use and substance use disorders. Highlights of the document include:

- The current *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* replaced older categories of "substance abuse" and "dependence" with a single classification of "substance use disorder," which is the clinically accurate term to describe the constellation of impairments caused by repeated misuse of a substance.
- Person-first language is the accepted standard for discussing people with disabilities and/or chronic medical conditions. Research shows that use of the terms "abuse" and "abuser" negatively affects perceptions and judgments about people with substance use disorders (SUD) including whether they should receive punishment rather than medical care for their disease.
- Terms such as "addict" and "alcoholic" can lead to similar negative perceptions. As a result, terms such as "person with a substance use disorder" or "person with an alcohol use disorder" are preferred.

Nursing Consideration: The term impaired nurse is associated with several negative connotations. Rather than use the term "impaired nurse," the terms "nurse impairment" and the "nurse with substance use disorder" is preferred. Impairment is used when talking about the provision of care. "Impairment results when a health professional, such as a physician, nurse, or allied health professional, is unable to provide competent and safe patient care because they are impaired by alcohol, prescription or non- prescription drugs, or mind-altering substances (Toney-Butler & Siela, 2021). Nurses and other healthcare professionals must know the definitions of terminology currently in use and how they are applied in clinical situations. Although "nurse impairment" and the "nurse with SUD" are preferred, the phrase impaired nurse is still in use by various organizations and experts, including the Florida legislature.

Self-Assessment Quiz Question #1

According to the 2021 Florida Statutes, a determination by a consultant based on a participant's response to treatment and prognosis is:

a. Inability to progress.
b. Material noncompliance.
c. Participant contract.
d. Treatment program.

CURRENT STATE OF THE PROBLEM

Substance use disorders affect persons of all ages, ethnicities, economic status, gender, occupation, and education status. The American Addiction Centers (2021) has published the following statistics pertaining to substance use disorders, based on 2017 data:

- According to the National Survey on Drug Use and Health (NSDUH), 19.7 million American adults (aged 12 and older) battled a substance use disorder in 2017.
- Nearly 74% of adults suffering from a substance use disorder in 2017 struggled with an alcohol use disorder.
- Approximately 38% of adults battled an illicit drug use disorder in 2017.
- In 2017, one out of every eight adults struggled with both alcohol and drug use disorders simultaneously.
- In 2017, 8.5 million American adults suffered from both a mental health disorder and a substance use disorder or co-occurring disorders.

Evidence-based practice! According to the Addiction Center (2021), 20% of nurses struggle with an addiction to drugs or alcohol. Because of the prevalence of the problem, nurses must be able to recognize impairment in others (and themselves) and take steps to get help while maintaining patient safety and quality of care.

Several work-related factors increase the risk for substance use disorders among nurses, including the following (Addiction Center, 2021; Redmond, 2017):

- Access to controlled substances.
- Staff shortages.
- Long work hours.
- Increased patient assignment ratios.
- Shift rotations.
- High levels of stress in the workplace.

The care of COVID patients has increased the stress on nurses to care for larger numbers of patients, more acutely ill patients,

more patients who die, and additional staff shortages related to COVID illnesses. In addition, nurses are faced with family and friends who also have COVID or may be isolated at home after exposures.

THE IMPACT OF SUBSTANCE USE AND IMPAIRMENT

The impact of substance abuse is costly not only to the individual nurses but to their families, loved ones, colleagues, and the organizations for which they work. The cost is measured in monetary terms as it relates to the potential loss of jobs, loss of income, and damage to health resulting in increased medical expenses. Drug abuse and addiction cost American society more than $740 billion annually in lost workplace productivity, healthcare expenses, and crime-related costs (American Addiction Center, 2021; Redmond, 2017). Peripheral effects of substance abuse may also result in domestic violence, child neglect, auto and other accidents, and crime.

There can be significant legal and ethical ramifications, not only for the nurses who cannot safely function while impaired, but also for their organizations and colleagues. The following points are important to the understanding of legal and ethical ramifications regarding the issue of substance use disorder and nurses who function in an impaired state (American Addiction Center, 2021; Redmond, 2017).

DRUG DIVERSION

Prescription drug diversion has significant ethical, legal, social, and state of health implications. Drug diversion "occurs when medication is redirected from its intended destination for personal use, sale, or distribution to others." Drug diversion includes theft of drugs, use of diverted drugs, or tampering. Drug diversion is a felony that can lead to criminal prosecution and loss of the nursing license (Nyhus, 2021).

Evidence-based practice! Research suggests that an estimated 95% of drug diversion cases within hospitals are under-investigated. This under-investigation is often because of organizational denial and inadequate monitoring (Carlson et al., 2021). Nurses and other healthcare professionals must be alert to drug diversion and are obligated to report it. Nurses should work with organizational leadership to develop policies and procedures that promote adequate investigation and monitoring as well as helping the person(s) who are diverting drugs.

Common types of prescription drugs that are diverted include anabolic steroids, central nervous system depressants, hallucinogens, opioids, and stimulants (Center for Medicare & Medicaid Services, [CMS], n.d.).

Self-Assessment Quiz Question #2

When discussing drug diversion, all the following statements are true EXCEPT:

a. An estimated 95% of drug diversion cases within hospitals are under-investigated.
b. Drug diversion includes theft of drugs, use of diverted drugs, or tampering.
c. Drug diversion is a serious ethical violation but cannot lead to criminal prosecution.
d. Anabolic steroids, central nervous system depressants, hallucinogens, opioids, and stimulants are common types of diverted drugs

ETHICAL, LEGAL, AND ORGANIZATIONAL IMPACT

Ethics. Ethical ramifications are significant. Healthcare organizations, nursing leaders, and all nurses are obligated to prevent drug diversion and to protect patients. Nurses have an ethical duty to protect not only patients but also their colleagues and the profession (American Nurses Association, 2015).

Legalities. Drug diversion, failure to report drug diversion or suspected functioning in an impaired state by another provider, and/or functioning in an impaired state are all grounds for disciplinary action by the Florida Board of Nursing according to 2021 Florida Statutes, as well as prosecution for the commitment of a felony (The Florida Legislature, 2021b). Florida law mandates that a state board of nursing licensed nurse make a good faith report of another nurse's workplace impairment, whether the situation is acute or if there is reasonable suspicion of impairment. According to 2021 Florida statutes (The Florida Legislature, 2021b)" "a person who the licensee knows is unable to practice nursing with reasonable skill and safety to patients by reason of illness or use of alcohol, drugs, narcotics, chemicals, or any other type of material, or as a result of a mental or physical condition, may be reported to a consultant operating an impaired practitioner program as described in s. 456.076 rather than to the department."

If patients are harmed because of a nurse functioning in an impaired state, failure to report a colleague who functions in an impaired state, or participating in drug diversion, the nurse may also be at risk for criminal prosecution and civil malpractice suits (Nyhus, 2021).

Organizational Impact. The primary impact on the organization is the threat of compromised patient safety. Risk to patients includes the following (The Joint Commission, 2019):

- Inadequate patient pain relief.
- Exposure to infectious diseases from contaminated needles and drugs.
- Delivery of unsafe care.
- Patient harm and/or injury.

Additional potential consequences of impairment include the following (Toney-Butler & Siela, 2021):

- Loss of revenue from drugs that are diverted.
- Costly investigations into impairment and its impact.
- Unsafe work quality or absenteeism.
- Civil liability for harm to the patient.
- Damaged reputation in the community.
- Civil liability for failure to prevent, recognize, or deal with signs of impairment and/or drug diversion.
- Increase in Workers' Compensation costs.

MYTHS AND TRUTHS ABOUT SUBSTANCE DISORDER IN NURSING

Many myths are associated with the problem of impairment among nurses. Common myths about substance abuse and nurses are presented in Table 1 (Addiction Group, 2021; Talbott Recovery, n.d.; U. S. Department of Health & Human Services, n.d.).

Table 1. Myths About Substance Use Disorder Among Nurses

Myth	Truth	Explanation
Nurses who function in an impaired state use only street drugs.	Nurses who are impaired use medications found in the workplace as well as common street drugs.	The problem may begin by taking a patient's medication for back pain or for stress relief. Nurses may substitute saline for injectable medications such as morphine sulfate.
Nurses who function in an impaired state have a long history of substance abuse.	The length of time of abuse varies.	Some nurses may have a lengthy history of drug or alcohol abuse. For others, a recent traumatic event such as divorce or illness may have led to substance abuse to cope.
It is easy to recognize a nurse with substance use disorder.	It is not always easy to recognize a nurse with substance use disorder.	There are certain signs that a nurse is a substance abuser. But many nurses take significant precautions to avoid detection. Persons with substance use disorders become very good at hiding their disorders.
Drug addiction is a voluntary action.	Drug addiction is a compulsive behavior and a disease.	Drug addiction affects the brain. It may begin as the result of an emotional or abusive situation, loss of support systems, poor choices, seeking a "high" or adrenaline rush, unstable life, denial, or enabling behaviors.
Abusing combinations of drugs is not harmful.	Combining drugs can have disastrous consequences.	Abusing combinations of drugs can have life-threatening consequences, including permanent physical disability or death.
Nurses require only a few weeks of treatment for addiction.	Short-term inpatient treatment programs should be at least 21 days in length.	It is essential that nurses and other persons treated for addictions receive follow-up supervision and physical and emotional support. Nurses who remain in treatment for at least a year are twice as likely as those who do not receive treatment to be free of drugs. But the struggle for recovery generally lasts a lifetime. The length of treatment and the willingness of the nurse to participate in treatment are the best predictors of success.
Nurses who are addicts have to want treatment. They cannot be forced into treatment.	Most nurses resist entering treatment programs.	The main reasons identified for entering treatment programs are court orders and the encouragement of family members, management, and peers.
Nurses who are alcoholics can quickly sober up.	How long it takes to sober up after drinking alcohol varies from person to person. The rate at which the body expels alcohol is .015% per hour. In most cases, .015% is about one drink per hour. It takes about 1to 2 hours to be free of alcohol after a beer or glass of wine. The more someone drinks, the longer the alcohol stays in the body.	Because it takes at least 3 hours to sober up, reporting to work after consuming alcohol can compromise the nurse's ability to provide patient care. Patient care can be compromised and serious errors may be made.
It is better to drink beer because beer does not have as much alcohol as hard liquor.	This is not true.	A 12-ounce serving of beer has the same amount of alcohol as a shot of 80% liquor.
Because doctors and nurses know about the dangers of drugs, they are more likely to avoid using them.	In fact, the truth is quite the opposite.	Because nurses and physicians have access to so many prescription drugs, they are more likely to be tempted to use them.
Prescription drugs are not as dangerous as substances such as marijuana and cocaine.	Substance use disorders are dangerous regardless of the substance being used.	Prescription drugs can be just as dangerous as illegal substances. The impact of prescription drugs over long periods is just as hazardous as illegal drugs.
Healthcare professionals have more willpower than the average member of the public and are thus able to resolve their substance use problems.	People may believe that they can deal with substance abuse disorders themselves. This is seldom, if ever, true.	Substance use disorders are illnesses and require professional intervention. The biggest mistake a healthcare professional can make is to keep problems a secret.

Self-Assessment Quiz Question #3

When discussing myths versus truths about SUD in nursing, the nurse knows that:

a. SUDs do not require professional intervention if the persons using substances is a healthcare professional.
b. Nurses and physicians are more likely to avoid substance use since they know the dangers associated with the problem.
c. If one must drink alcohol, it is better to drink beer because it does not have as much alcohol as hard liquor.
d. Prescription drugs can be just as dangerous as illegal substances if they are part of an SUD/

SIGNS OF IMPAIRMENT

Ashley is a registered nurse who has worked in critical care settings for the past 12 years. She is attending college to earn a Doctor of Nursing practice degree. Ashley has a reputation as an excellent clinician and leader. She is also known as a perfectionist who drives herself to the point of exhaustion whether she is acting as a clinician, patient advocate, or graduate student. Over the past few months, her colleagues have noticed some changes in Ashley. Her hair is often disheveled and she appears unusually sleepy. Normally outgoing and talkative, Ashley now seldom engages in conversation with her colleagues unless it directly relates to patient care. And she refuses invitations for social outings issued by her friends. Her colleagues have noticed that she is often hard to find on the nursing unit, and her patients have begun to complain of unrelieved pain. Ashley frequently volunteers to administer medications for other nurses saying that she knows they are busy. Ashley's colleagues are reluctantly beginning to worry that Ashley may have a substance abuse problem.

This scenario demonstrates a typical situation of escalating substance abuse. Early identification and treatment of persons who have SUDs and show signs of impairment is essential to the nurse's recovery and to the delivery of safe and appropriate nursing care.

Nursing Consideration: It's worth reiterating that nurses have multiple ethical obligations. The American Nurses Association's (ANA) Code of Ethics makes it clear that a nurse who is aware of a colleague's impairment has an ethical obligation to report it. All nurses must be aware of professional associations' standards and positions as they deal with the problem of impairment in the workplace and adhere to those standards and positions (American Nurses Association, 2015).

WARNING SIGNS OF IMPAIRMENT

Signs of impairment may be subtle at first but gradually progress to overt signs and behaviors. Nurses may display one or more of the warning behaviors. The following are warning signs of impairment (American Association of Nurse Anesthesiology, 2019; Intervention Project for Nurses, 2016b; Toney- Butler & Siela, 2021):

- Administers maximum amount of PRN doses of controlled medication.
- Absences from work without notice.
- Assigned patients complain of unrelieved pain.
- Borrowing money from coworkers.
- Changes in grooming or personal hygiene.
- Decreased alertness.
- Decreased work quality.
- Documentation errors.
- Emotional lability.
- Excessive use of breath mints, chewing gum, or mouthwash.
- Failure to perform narcotics counts.
- Frequent or unexplained absences from the nursing unit.
- Frequently offers to give medications for other nurses.
- Increased absenteeism or tardiness at work.
- Increased mistakes/errors at work.
- Isolation from coworkers.
- Mood swings.
- Requests time off at the last minute.
- Smells of alcohol or other drugs that have distinctive odors.
- Takes long breaks or extended mealtimes.
- Tremors or shaking.
- Unusual sleepiness.

BEHAVIORS AND SIGNS OF DRUG DIVERSION

Behaviors and signs of drug diversion may include the following (American Association of Nurse Anesthesiology, 2019; Intervention Project for Nurses, 2016b; Toney-Butler & Siela, 2021):

- Consistently arrives at work early, stays late, or often volunteers for overtime.
- Consistently administers more controlled drugs than coworkers do.
- Takes frequent breaks or makes unusually frequent trips to the bathroom.
- Frequently offers to administer medications, especially opioids, for colleagues.
- Frequently reports spilling or wasting drugs.
- Narcotics records do not reconcile with drugs administered or dispensed.
- Patients report unrelieved pain.

RECOGNIZING SELF-IMPAIRMENT

In addition to overt signs and behaviors, the National Institute on Drug Abuse (NIDA; n.d.) has identified a series of questions that may help affected nurses to recognize their own impairment. These questions were designed to elicit information from the person struggling, or potentially struggling, with impairment. Similar questions may be used for alcohol abuse.

For example, the nurse may be asked the following questions (National Institute on Drug Abuse, n.d.; Toney-Butler & Siela, 2021):

- Do you think about drugs a lot?
- Have you ever tried to reduce the amount of drugs you take or stop using them altogether but could not?
- Have you ever thought that you cannot have a good time or fit in with friends or family without the use of drugs?
- Do you ever use drugs because you are upset or angry with people?
- Have you ever taken a drug without knowing what it was or what effects it would have on you?
- Have you ever taken one drug to get over the effects of another drug?

- Have you ever made mistakes at work because you were using drugs?
- Does the thought of not being able to get drugs frighten you?
- Have you ever stolen drugs or stolen money to pay for drugs?
- Have you ever been arrested or hospitalized because of your drug use?
- Have you ever overdosed on drugs?
- Has using drugs hurt your relationships with others?

Self-Assessment Quiz Question #4

Warning signs of impairment include all of the following EXCEPT:

a. Assigned patients complain of unrelieved pain.
b. The nurse refuses to take breaks or mealtimes.
c. The nurse avoids performing narcotics counts.
d. Coworkers complain that the nurse is continuously trying to borrow money from them.

In summary, several behaviors and signs are associated with the nurse who is dealing with substance use disorder. If nurses suspect that a colleague is functioning while impaired, they—and their employers—are obligated not only to report the problem but also to help the nurse on the road to recovery. Employers must also take initiatives to promote organizational safety as it relates to nurses dealing with substance use disorder.

EMPLOYER INITIATIVES TO PROMOTE SAFETY

Employer obligations

Healthcare organizations are obligated to make sure that effective systems and processes are in place to prevent diversion and to protect patients from the safety threats because of nurse impairment. It is essential that explicit policies and procedures for facilitating and maintaining a drug-and-alcohol-free working environment be established and followed meticulously. Such policies and procedures must be enforced uniformly, without exception, regardless of the impaired person's position in the workplace (Intervention Project for Nurses, 2016b.; National Council of State Boards of Nursing, 2018a; 2018b).

Policies and procedures must be regularly reviewed and revised as necessary. These policies and procedures must also correlate with Florida rules and laws as they pertain to professional practice (Intervention Project for Nurses, 2016b; National Council of State Boards of Nursing, 2018a; b).

The National Council of State Boards of Nursing (NCSBN) recommends that policies include guidelines for drug testing before employment, testing when there is suspicion of impairment, and conducting fitness-to-practice assessments (Intervention Project for Nurses, 2016b; National Council of State Boards of Nursing, 2018a; b).

Self-Assessment Quiz Question #5

A nurse manager understands that organizational leadership has an obligation to help prevent diversion and to protect patients from safety threats because of nurse impairment. These obligations include which of the following?

a. Avoid implementing guidelines for preemployment drug testing since this is invasion of employee privacy.
b. Correlate policies and procedures with Florida rules and laws as they pertain to professional practice.
c. Fitness to practice assessments must be conducted by a staff member from the state Board of Nursing.
d. Implement policies that mandate immediate dismissal of nurses who are suspected of impaired practice.

CONTINUING EDUCATION

It is not enough to have appropriate policies and procedures in place. It is not even enough to adhere to such policies and procedures. To address the problem of impairment, all members of the organization (not just nurses and other clinical staff) need to receive education about impairment. Warning signs of impairment may first be recognized by coworkers who are not direct patient care providers or who do not work directly with those who are impaired (Intervention Project for Nurses, 2016b; National Council of State Boards of Nursing, 2018a; b).

Evidence-based practice! Research has shown that insufficient knowledge of the signs and symptoms of impairment keeps coworkers from making accurate observations and appropriately addressing and reporting the issue (Intervention Project for Nurses, 2016b; National Council of State Boards of Nursing, 2018a; b). Therefore, it is imperative that employers provide adequate continuing education to all employees.

IMPORTANT INITIATIVES SUMMARY

To provide the safest possible healthcare environment for patients, families, and employees, the following employer initiatives are imperative (Intervention Project for Nurses, 2016b; National Council of State Boards of Nursing, 2018a; b):

- Establish policies and procedures that define impaired work performance, how to recognize it, the consequences of working in an impaired state, the consequences of failing to report suspected impairment in coworkers, and interventions to help the impaired person recover.
- Educate all employees to be aware of how to follow policies and implement procedures that deal with impairment.
- Establish policies and procedures that provide safeguards regarding confidentiality for the person who reports suspected impairment and the authority figure who receives the report. It is imperative that nurses and other employees believe that they can communicate their concerns without fear of retaliation. Policies should also include information about a process to report suspected impairment, maintenance of confidentiality (excepting mandatory reporting requirements to state and federal agencies), auditing process of medication records, and fitness for duty evaluation.
- Provide continuing education programs that deal with impairment. Mandate that all employees attend continuing education programs that deal with impairment. Such education must be appropriate for the employees' education, training, and roles that they fulfill.
- Communicate available resources to help impaired nurses (and other impaired employees) obtain the help that they need to recover.
- Dispel myths and misconceptions regarding substance use disorder.

INTERVENTIONS FOR THE NURSE DEALING WITH IMPAIRMENT

Some experts recommend that the nurse suspected of impairment should first be confronted by a professional interventionist or by persons trained in substance abuse intervention. Many health care organizations have employee assistance staff members trained to make the first contact with the person who is, or is suspected of being, impaired. It is recommended that all organizations have personnel with such training (Intervention Project for Nurses, 2016).

The ANA Code of Ethics no longer recommends confronting colleagues as the first step when impairment is suspected. Currently, the 2015 ANA Code of Ethics states the following: "The nurse's duty is to take action to protect patients and to ensure that the impaired individual receives assistance. This process begins with consulting supervisory personnel, followed by approaching the individual in a clear and supportive manner and by helping the individual access appropriate resources" (American Nurses Association, 2015).

Nursing Consideration: The Florida Nurse Practice Act mandates that the nurse who suspects a colleague is impaired report her suspicions to the Intervention Project for Nurses or to the Florida Department of Health. Under Florida mandatory reporting laws, all licensed nurses must report any suspected impairment in practice to the Department of Health or the Intervention Project for Nurses (Florida Board of Nursing, 2019). The Intervention Project is designed to not only protect the public, but also to offer consultations and education, provide support and monitoring to nurses, and ultimately to help nurses maintain licensure and continue in the profession.

The Intervention Project for Nurses (IPN) has published a list of dos and don'ts when initiating an intervention for the nurse who may be functioning under the influence of impairment (Intervention Project for Nurses, 2016b).

Dos

- Prepare a plan of intervention. Intervene in a private setting.
- Review documentation regarding the nurse in question. (Specifics regarding documentation are presented later in this course).
- Request assistance from others.
- Decide who will present what facets of the intervention.
- Ask the nurse in question to listen to all that is said before allowing them to respond to those who are intervening.
- Stick to job performance when intervening.
- Have evaluator options available.
- Expect the nurse to deny that they have a problem with impairment.
- Report as necessary to the state alternative program or Board of Nursing.
- Debrief with the interveners.

Don'ts

- Intervene alone.
- Just react without a plan.
- Try to diagnose the problem.
- Expect a confession.
- Give up.
- Use labels.

In addition to protecting patients, employers are ethically and legally obligated to help nurses and other employees who are impaired. In Florida, the IPN is a primary resource for promoting advocacy, fitness to practice, and support (Intervention Project for Nurses, 2016b).

Self-Assessment Quiz Question #6

A nurse notices behaviors that indicate a colleague often functions in an impaired state. The nurse should:

a. Approach the colleague alone to avoid causing embarrassment.
b. Anticipate that the colleague will confess to impairment.
c. Try to diagnosis if the colleague is truly impaired or has a mental health illness.
d. Prepare a plan of intervention.

THE INTERVENTION PROJECT FOR NURSES

In Florida, the Intervention Project for Nurses (IPN) is a resource not only for nurses with substance use disorder but also for their colleagues and employers. To ensure that every effort is made to secure a safe patient environment, any person suspecting that a nurse's ability to provide safe and appropriate nursing care is impaired may report this nurse to the IPN or to the Florida Department of Health (Intervention Project for Nurses, 2016b).

IPN (2016b) was established in 1983 through passage of Florida legislation. The IPN is one of Florida's designated Impaired Practitioner programs (IPP). Under contract with the Florida Department of Health (DOH), the IPN provides statewide education, support, and monitoring to nurses with impairing conditions, including substance use disorders and psychiatric and physical conditions. Nurses are referred, most often, to the IPN by nursing employers because of potential safety to practice concerns (Intervention Project for Nurses, 2016b).

Here are the project's objectives (Intervention Project for Nurses, 2016a):

- To protect the health, safety, and welfare of the public, as risks to patients increase when a nurse providing care has an active impairing condition.
- To offer consultation and educational programs to encourage earlier identification and action when fitness to practice concerns are present.
- To provide support and monitoring to nurses appropriate for the IPN while assisting each to maintain professional licensure.
- To supply a cost-effective avenue to help nurses as an alternative to the traditional disciplinary process.
- To retain nurses in the nursing profession.

The IPN offers intervention training. The organization's leaders have a crucial role in the early recognition of impairment and appropriate intervention. The project offers employers extensive resources regarding impairment, including an employer orientation course (Intervention Project for Nurses, 2016a).

In summary, employers are obligated to provide a system that ensures patient safety, promotes a safe work environment, and facilitates the opportunity for impaired nurses to obtain necessary help to overcome their addiction.

Self-Assessment Quiz Question #7

Which of the following statements accurately describes the role of the IPN as a resource for dealing with the problem of impairment?

a. Nurses are most often referred to the IPN by their colleagues.
b. The IPN offers intervention training for those who must confront nurses who may be impaired.
c. The IPN is responsible for disciplining nurses who function in an impaired state.
d. Nurses are obligated to resign from the profession if they are referred to the IPN.

FLORIDA LAWS AND RULES

The 2021 Florida statutes include explicit elements regarding the acts that constitute grounds for denial of a license or disciplinary actions. Section 464.018 states the following if the following acts constitute grounds for denial of a license or disciplinary action related to impairment, as specified in ss. 456.0072 (2) and 464.0095 (The Florida Legislature, 2021b):

Section j: Being unable to practice nursing with reasonable skill and safety to patients by reason of illness or use of alcohol, drugs, narcotics, or chemicals or any other type of material or as a result of any mental or physical condition. In enforcing this paragraph, the department shall have, upon a finding of the State Surgeon General or the State Surgeon General's designee that probable cause exists to believe that the nurse is unable to practice nursing because of the reasons stated in this paragraph, the authority to issue an order to compel a nurse to submit to a mental or physical examination by physicians designated by the department. If the nurse refuses to comply with such order, the department's (Department of Health) order directing such examination may be enforced by filing a petition for enforcement in the circuit court where the nurse resides or does business. The nurse against whom the petition is filed shall not be named or identified by initials in any public court records or documents, and the proceedings shall be closed to the public. The department shall be entitled to the summary procedure provided in s. 51.011. A nurse affected by this paragraph shall at reasonable intervals be afforded an opportunity to demonstrate that she or he can resume the competent practice of nursing with reasonable skill and safety to patients.

Section k: Failing to report to the department any person who the nurse knows is in violation of this part or of the rules of the department or the board. However, a person who the licensee knows is unable to practice nursing with reasonable skill and safety to patients by reason of illness or use of alcohol, drugs, narcotics, chemicals, or any other type of material, or as a result of a mental or physical condition, may be reported to a consultant operating an impaired practitioner program as described in s. 456.076 rather than to the department.

Section l: Knowingly violating any provision of this part, a rule of the board or the department, or a lawful order of the board or department previously entered in a disciplinary proceeding or failing to comply with a lawfully issued subpoena of the department.

Section m: Failing to report to the department any licensee under chapter 458 or under chapter 459 who the nurse knows has violated the grounds for disciplinary action set out in the law under which that person is licensed and who provides health care services in a facility licensed under chapter 395, or a health maintenance organization certificated under part I of chapter 641, in which the nurse also provides services.

Self-Assessment Quiz Question #8

According to Section 464.018, all the following actions constitute grounds for denial of a license or disciplinary action related to impairment EXCEPT:

a. Being unable to practice nursing with reasonable skill and safety to patients.
b. Failing to report to the department any person who the nurse knows is in violation of the rules of the department or the board.
c. The nurse against whom the petition is filed shall be identified by name in public court.
d. The nurse shall at reasonable intervals be afforded an opportunity to demonstrate that she or he can resume the competent practice of nursing.

REPORTING OR REFERRING THE NURSE FUNCTIONING UNDER IMPAIRMENT

Under Florida's mandatory reporting laws, all licensed nurses must report any suspected impairment in practice to the IPN or to the Florida Department of Health. Nurses may also report themselves to the IPN (Intervention Project for Nurses, 2016b).

REPORTING

Nurses with substance use problems are understandably concerned about disciplinary action against their license by the Florida Board of Nursing. The IPN has posted the following information about disciplinary action on its website: https://floridasnursing.gov/

If the nurse has been reported only to the IPN, she/he agrees to participate in the IPN, and successfully completes the IPN, the file is closed and held in confidence with no disciplinary action resulting. If the nurse is reported only to the IPN and does not agree to participate or does not successfully complete the IPN, then the information in IPN's possession is forwarded to the DOH, which may result in disciplinary action if deemed appropriate. In some cases, the nurse is reported both to the IPN and the DOH. In those cases, the disciplinary process proceeds and may result in disciplinary action (Intervention Project for Nurses, 2016b).

The mandatory initiatives are in the best interests of patients, colleagues, and the impaired nurses themselves. By acknowledging the problem, the impaired nurse has the opportunity to obtain treatment and recover in confidence without experiencing disciplinary action as long as they agree to participate in the IPN and successfully complete the program (Intervention Project for Nurses, 2016b). Employers should do everything possible to support treatment and recovery efforts.

The first step in mandatory reporting takes place before any suspicion that a colleague is impaired. First, nurses must know and be familiar with the laws that govern the reporting process. They must also obtain the education necessary to recognize the signs and behaviors associated with impairment (Intervention Project for Nurses, 2016b; The Florida Legislature, 2021b).

Next, and equally important, nurses must understand and follow their organization's policies and procedures for reporting impairment and what assistance programs are available. Nurses are more likely to report impairment when they know that there is help available for their colleagues in the form of employee assistance programs or alternatives to discipline programs (Intervention Project for Nurses, 2016b; National Council for State Boards of Nursing, 2018a).

When Florida nurses suspect that a colleague is dealing with impairment, they are required to report such suspicions to the IPN or the DOH. The purpose of mandatory reporting is to quickly intervene to protect patients from harm and, in the long term, to help the impaired nurse to recover (Intervention Project for Nurses, 2016b; The Florida Legislature, 2021b).

Before making a report, experts recommend that nurses take note of specific actions, signs and symptoms, and behaviors that made them suspect a colleague is impaired, as well as when, where, and under what circumstances these signs and behaviors were observed. Annotating this information in writing may help to clearly document the observations and identify any supporting evidence that may be forgotten over time. This will help the nurse when making a report (Intervention Project for Nurses, 2016b; National Council for State Boards of Nursing, 2018a).

The IPN (2016b) recommends that, before initiating any action, organizational policies and procedures should be reviewed. It is recommended that the following items be part of a comprehensive policy for dealing with the problem of impairment:

- Pre-employment and probable cause drug testing.

- Fitness to practice evaluations.
- Documentation expectations.
- Intervention procedures.
- In-house and external reporting requirements.
- Return to practice guidelines, including relapse management.

Self-Assessment Quiz Question #9

The first step in mandatory reporting:

a. Takes place before any suspicion that a colleague is impaired.
b. Is reporting the nurse who may be impaired.
c. Is when Florida nurses suspect impairment, they must report their suspicions to the Florida legislature.
d. Asking the nurse to undergo drug testing.

DOCUMENTATION

The IPN (2016b) strongly recommends adequate documentation on impairment. All persons involved in reporting should be told that documentation should be clear, concise, factual, and, above all, objective. The date, time, place, and circumstances should also be included.

For example: "On October 28, 2016, at 11 a.m., Marie Clark, RN, was observed sitting in the break room on the patient care unit with her head resting on a table, asleep. When awakened she was drowsy and her speech was slightly slurred. Her pupils were dilated. Both hands were slightly trembling. She said, 'I am not feeling very well. I guess I partied too hard last night.' Marie than approached the charge nurse and asked permission to go home."

Such documentation should be kept confidential and given only to supervisory personnel and appropriate others, such as employee assistance personnel, as required by organizational policies and procedures (Intervention Project for Nurses, 2016b; National Council of State Boards of Nursing, 2018b).

REASONS NURSES DO NOT REPORT IMPAIRMENT

Studies have indicated that the following are some of the reasons nurses fail to report impaired coworkers (AANA, 2019; Maurits et al., 2016).

- Assuming that someone else will handle the problem.
- Fear of being labeled a tattletale.
- Fear of retaliation.
- Fear that the impaired colleague might become violent.
- Fear that reporting a colleague may put that colleague's job in jeopardy.
- Fearing that they do not know enough about impairment to justify the decision to report a colleague.

However, Florida law requires nurses to make a good faith report concerning an impaired colleague. Nurses must remember that their ultimate responsibility is to protect the health and well-being of their patients. They also are obligated to report an effort to help the impaired colleague recover from addiction.

TREATMENT

Employer interventions

The American Nurses Association is a strong advocate for assistive programs that monitor and support safe treatment, rehabilitation, and return to the professional workplace (American Nurses Association, 2016). Part of this advocacy includes promotion of employer initiatives to aid with the nurse who is dealing with a substance use disorder.

As previously noted, all health care organizations should have policies and procedures that address the issue of impairment. An important part of these policies and procedures should address the need for a workplace climate of compassion, not only for patients but also for nurses. Some experts recommend the establishment of nurse well-being or nurse health promotion committees. Those who serve on such committees must be professional peers with knowledge, compassion, and willingness to help nurses struggling with impairment and other issues that impact their professional practice (Intervention Project for Nurses, 2016b).

TREATMENT PROGRAMS

Florida statutes clearly identify actions that the nurse who is functioning in an impaired state must take. The following statements are an overview of section 456.076 of the Florida statutes, but not a verbatim description. For complete wording and statements, access http://www.leg.state.fl.us/Statutes/index.cfm? App_mode=Display_Statute&URL=0400-0499/0456/Sections/0456.076.html.

When the department receives a legally sufficient complaint alleging that a practitioner has an impairment and no complaint exists against the practitioner other than impairment, the department shall refer the practitioner to the consultant, along with all information in the department's possession relating to the impairment. The impairment does not constitute grounds for discipline pursuant to s. 456.072 or the applicable practice act if:

- The practitioner has acknowledged the impairment.
- The practitioner becomes a participant in an impaired practitioner program and successfully completes a participant contract under terms established by the consultant.
- The practitioner has voluntarily withdrawn from practice or has limited the scope of their practice if required by the consultant.
- The practitioner has provided to the consultant, or has authorized the consultant to obtain, all records and information relating to the impairment from any source and all other medical records of the practitioner requested by the consultant.
- The practitioner has authorized the consultant, in the event of the practitioner's termination from the impaired practitioner program, to report the termination to the department and provide the department with copies of all information in the consultant's possession relating to the practitioner.

The following mandates guide the consultant's actions in the event that the practitioner does not complete the impairment program (The Florida Legislature, 2021b):

- When a participant is terminated from the impaired practitioner program for material noncompliance with a participant contract, inability to progress, or any other reason than completion of the program, the consultant shall disclose all information in the consultant's possession relating to the practitioner to the department. Such disclosure shall constitute a complaint pursuant to the general provisions of s. 073. In addition, whenever the consultant concludes that impairment affects a practitioner's practice and constitutes an immediate, serious danger to the public health, safety, or welfare, the consultant shall immediately communicate such conclusion to the department and disclose all information in the consultant's possession relating to the practitioner to the department.

- All information obtained by the consultant pursuant to this section is confidential and exempt from s. 07(1) and s. 24(a), Art. I of the State Constitution.
- In accordance with s. 385, the Department of Financial Services shall defend any claim, suit, action, or proceeding, including a claim, suit, action, or proceeding for injunctive, affirmative, or declaratory relief, against the consultant or the consultant's directors, officers, employees, and agents, brought as the result of any action or omission relating to the impaired practitioner program.

TREATMENT INTERVENTIONS

The IPN evaluates nurses who are referred/reported to the project to determine the best course of action. The IPN is an alternative to the disciplinary process for nurses whose practice may be impaired because of substance abuse, psychological/psychiatric difficulties and/or physical conditions (Intervention Project for Nurses, 2016a; b).

The following services are provided by the IPN to help the impaired nurse recover (Intervention Project for Nurses, 2016c):

- Provides confidential consultations related to nurse impairment issues.
- Conducts education for nursing employers, Department of Health, Florida Board of Nursing, schools of nursing, and all other interested parties.
- Evaluates incoming referrals to determine appropriate actions.
- Facilitates fitness to practice evaluations on nurses with suspected impairment.
- Establishes comprehensive monitoring contracts for nurses who enter the Intervention Project for Nurses.
- Coordinates monitoring among regional areas and the Intervention Project for Nurses.
- Provides support and compliance reports for participants (Department of Health Board/Councils, employers/partners, insurance carriers, attorneys).
- Oversees a statewide network of IPN nurse support groups.
- Detects relapses and provides a format for early intervention.
- Reports noncompliance of participants to the Department of Health as required for appropriate action to ensure public safety and welfare.
- Performs day-to-day case management on all actively monitored participants.
- Provides a system to screen applications with history of impairment,
- Implements and monitors the IPN in all Department of Health final orders.

It is important to note that, if at any time during the treatment process or after returning to work, the nurse refuses to participate in the program or fails to comply with program guidelines, they are referred to the Florida Department of Health for discipline. This generally consists of investigation, hearings, and disciplinary action (Intervention Project for Nurses, 2016a).

It is also important for nurses to know that the Florida Board of Nursing allows nurses two chances to return to work after referral for diversion of drugs or narcotics. After a third violation, the board will not reinstate the nurse's license (The Florida Legislature, 2021b).

RETURN TO WORK

The Code of Ethics emphasizes that nurses are to follow organizational policies and procedures, adhere to guidelines and standards of the profession, and obey laws that were written to assist nurses who are dealing with SUD and impairment as well as other healthcare professionals. Although the primary concern is patient safety, there is significant focus on helping colleagues whose job performance is negatively influenced by mental or physical illness, fatigue, substance abuse, or personal circumstances (American Nurses Association, 2015).

Readiness to return to work is evaluated by several criteria (Intervention Project for Nurses, 2016c; The Florida Legislature, 2021b):

- Treatment participation.
- Stability in recovery.
- Cognitive functioning.
- Making legally and ethically sound decisions regarding nursing practice and patient needs.
- Problem-solving ability.
- Instituting safe and appropriate judgment.
- Coping with stressful situations.
- Establishing a support system.
- Signing an advocacy contract and completing relapse prevention workbooks.

Self-Assessment Quiz Question #10

Readiness to return to work is evaluated by all of the following criteria EXCEPT:

a. Stability in recovery.
b. Coping with stressful situations.
c. Reporting other nurses suspected of impairment.
d. Problem solving ability.

One of the most crucial of the preceding criteria is that of stability in recovery. Stability is measured by the following (Intervention Project for Nurses, 2016c; The Florida Legislature, 2021b):

- Complying with the treatment contract.
- Consistently negative random urine drug screens.
- Attending support groups on a regular basis.
- Attending monitoring groups on a regular basis.
- Progress reports generated by treatment providers, nurse support group facilitators, and the self- reports of nurses in recovery.

The IPN (2016b) notes that:

The prospect of returning to work is anxiety-provoking for the recovering nurse and often the Nurse Manager as well. Discussing the plan for return to work before the date will decrease misunderstanding and potential problems later. Those participating in a return-to-work conference may include (besides the recovering nurse and Nurse Manager) an Employee Assistance Program (EAP) representative, Human

Resources staff, support colleague/buddy and/or treatment representative. The written return-to-work agreement should be prepared and copies made for each person present at the meeting. The National Council of State Boards of Nursing (NCSBN) recommends that return to work contracts stipulate clear expectations (Intervention Project for Nurses, 2016b).

Case study: Abby

Abby is a newly licensed registered nurse in Florida. She knows that she is mandated to report workplace impairment. She hopes that she will not be the one to first identify signs of impairment in a colleague, James who has worked as an RN for 15 years. Unfortunately, Abby soon faces this troubling situation. "What do I do now? I hate to turn him in, but if I don't, some patients might get hurt and he won't get the help he needs. Oh, I hate this!" Abby is facing one of the most difficult situations in her role as a professional. There is no room for argument, however. Abby is mandated to report the impaired nurse.

Question

1. What steps does Abby need to take?
2. What does James need to do to recover and keep his license and his job?

Discussion

1. Hopefully, Abby is already familiar with the laws that govern reporting and her organization's policies and procedures related to impairment. If she is not, she needs to familiarize herself with them immediately. Before making a report (unless patients are immediate danger from a nurse functioning when impaired, which requires immediate intervention), Abby should objectively document specific actions, signs and symptoms, and behaviors that made her suspect impairment. Abby should not confront James without assistance. Many organizations have employees who are specifically trained to intervene in cases of impairment. Organizational policies and procedures and applicable laws will guide Abby's actions.
2. James needs to follow organizational policies and procedures, adhere to guidelines and standards of the profession, and obey laws that were written to assist nurses who are dealing with SUD and impairment. James needs to sign a contract and adhere to a treatment plan. He will be evaluated by criteria including:
   - Treatment participation.
   - Stability in recovery.
   - Cognitive functioning.
   - Making legally and ethically sound decisions regarding nursing practice and patient needs
   - Problem-solving ability.
   - Instituting safe and appropriate judgment.
   - Coping with stressful situations.
   - Establishing a support system.
   - Signing an advocacy contract and completing relapse prevention workbooks.

G.I.F.T.S

Nurses need support and encouragement, not only throughout the treatment process, but also during recovery. They also need to support themselves as they recover from addiction. Lorie Brown, a nurse attorney, recommends using the acronym "GIFTS" to overcome addiction (Brown, 2016).

- **G**iving: The impaired nurses need to be giving of themselves by taking care of themselves and seeking appropriate treatment and assistance.
- **I**ntegrity: The impaired nurses need to align their actions with core beliefs and actions and within parameters set by their consciences.
- **F**ocus and follow-Through: Impaired nurses must make recovery their first priority. They must also learn to forgive themselves for their actions so that they can move forward and recover.
- **T**rust: Nurses need to trust their instincts. Most nurses will admit that every time they abuse substances or divert drugs, they feel ashamed, nervous, or frightened. These feelings can be interpreted as warnings that something is very wrong.
- **S**ource of recovery: According to Brown, this is the most important part of any recovery.

The nurse struggling with impairment is the primary source of what happens in recovery. Once addiction or substance abuse is recognized and admitted, impaired nurses must then choose whether to report or not and, essentially, whether to recover or not. Nurses should also be told that whenever they feel tempted to return to addiction behaviors, no matter when this occurs during treatment or recovery, they should seek help at once (National Council for State Boards of Nursing, 2018a; b).

Conclusion

In summary, the problem of the impaired nurse poses a real danger to patient safety and the effective delivery of patient care in all healthcare organizations. Florida nurses must be aware that they are mandatory reporters and must take action to safeguard their patients and help colleagues to recover.

All healthcare organizations must have policies and procedures that address the problem of impairment, steps necessary to protect patient safety, reporting procedures, and steps to help the impaired nurse recover. A workplace environment that focuses on safety first while providing compassion and help for nurses struggling with addiction will ultimately provide the best avenue for successful treatment and recovery.

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RECOGNIZING AND REPORTING NURSE IMPAIRMENT IN THE WORKPLACE FOR FLORIDA NURSES

Self-Assessment Answers and Rationales

1. **The correct answer is A.**
Rationale: Inability to progress is defined as a determination by a consultant based on a participant's response to treatment and prognosis that the participant is unable to safely practice despite compliance with treatment requirements and their participant contract.

2. **The correct answer is C.**
Rationale: Drug diversion is a felony that can lead to criminal prosecution and loss of nursing license.

3. **The correct answer is D.**
Rationale: Prescription drugs can be just as dangerous as illegal substances. The impact of prescription drugs over long periods is just as hazardous as illegal drugs.

4. **The correct answer is B.**
Rationale: One of the warning signs of impairment is taking long breaks or extended mealtimes.

5. **The correct answer is B.**
Rationale: Policies and procedures must be regularly reviewed and revised as necessary. These policies and procedures must also correlate with Florida rules and laws as they pertain to professional practice.

6. **The correct answer is D.**
Rationale: Before confronting a colleague a plan of intervention of action should be prepared.

7. **The correct answer is B.**
Rationale: The IPN offers intervention training. The organization's leaders have a crucial role in the early recognition of impairment and appropriate intervention. The project offers employers extensive resources regarding impairment, including an employer orientation course.

8. **The correct answer is C.**
Rationale: The nurse against whom the petition is filed shall not be named or identified by initials in any public court records or documents, and the proceedings shall be closed to the public.

9. **The correct answer is A.**
Rationale: The first step in mandatory reporting takes place before any suspicion that a colleague is impaired. First, nurses must know and be familiar with the laws that govern the reporting process. They must also obtain the education necessary to recognize the signs and behaviors associated with impairment.

10. **The correct answer is C.**
Rationale: Reporting other nurses of suspected impairment is not listed among the evaluation criteria.

RECOGNIZING AND REPORTING NURSE IMPAIRMENT IN THE WORKPLACE FOR FLORIDA NURSES

Final Examination Questions

Select the best answer for each question and mark your answers on the Final Examination Answer Sheet found on page 145 or complete your test online at **EliteLearning.com/Book**

41. An act or omission by a participant in violation of their participant contract as determined by the department or consultant is:
    a. (correct) Material noncompliance.
    b. Referral.
    c. Inability to progress.
    d. Treatment violation.
42. According to data published by the American Addiction Center:
    a. About 50% of adults who have an SUD also have an alcohol use disorder.
    b. 5% of all nurses struggle with an addiction to drugs or alcohol.
    c. In 2017, one out of every 15 adults struggled with both alcohol and drug use disorders simultaneously.
    d. (correct) About 38% of adults battled an illicit drug use disorder in 2017.
43. All of the following statements pertaining to the impact of impairment are true EXCEPT:
    a. A nurse who fails to report a colleague who functions in an impaired state may be at risk for criminal prosecution and civil malpractice suits.
    b. There is a disproportionate decrease in Workers' Compensation costs because nurses try to hide their impairment.
    c. Nurses have an ethical duty to protect patients, colleagues, and the profession.
    d. Risks to patients include exposure to infectious diseases.
44. Nurses who function in an impaired state:
    a. Always have a lengthy history of substance abuse.
    b. Voluntarily become addicted to drugs.
    c. May experience life-threatening consequences if they are abusing combinations of drugs.
    d. Use only street drugs.
45. (3897254) Which of the following are warning signs of impairment?
    a. Hyper-alertness.
    b. Often offers to give medications for other nurses.
    c. Frequently wants to party with co-workers.
    d. Gives only small amounts of PRN doses of controlled medications.
46. According to the ANA Code of Ethics and the IPN, if a nurse suspects that a colleague is impaired, the first step should be to:
    a. Consult with supervisory personnel.
    b. Confront the colleague who may be dealing with impairment.
    c. Use labels.
    d. Expect the colleague to admit that there is a problem with impairment
47. The IPN:
    a. Functions as a disciplinary organization.
    b. Reviews Board of Nursing Guidelines.
    c. Offers intervention training.
    d. Charges large amounts of money for its help.
48. Failure to report any person who the nurse knows is in violation of safe practice standards may result in all of the following EXCEPT:
    a. Disciplinary actions.
    b. Grounds for denial of a license.
    c. Legal ramifications.
    d. Publication of the names of the nurse who failed to report and the nurse who is suspected of impairment.
49. The IPN provides which of the following services?
    a. Oversees a statewide network of IPN nurse support groups.
    b. Reports relapses to law enforcement.
    c. Evaluates the quality of the undergraduate education the impaired nurse received before licensure.
    d. Shares the results of confidential consultations to the impaired nurse's employer and the Board of Nursing.
50. According to Brown and the G.I.F.T. guidelines, the impaired nurses need to align their actions with core beliefs. This is referred to as:
    a. Giving.
    b. Focus and follow-Through.
    c. Integrity.
    d. Trust.

Course Code: ANCCFL02NI

Basic Psychiatric Concepts

6 Contact Hours

Release Date: June 1, 2022

Expiration Date: June 1, 2025

Faculty

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

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

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

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

Course overview

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

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

Learning objectives

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

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

How to receive credit

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

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Activity director

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

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

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

HISTORY OF MENTAL HEALTHCARE

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

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

In the late 1800s and early 1900s, Sigmund Freud developed his landmark work regarding how childhood experiences and faulty parenting shape the mind (Boyd, 2018; Fromm, 2013). This began the movement toward scientific reasoning and understanding behaviors. Freud influenced researchers such

as Carl Jung and Alfred Adler as well as other researchers who contributed to the fields of behaviorism, somatic treatments, and biology (Wedding & Corsini, 2020). With these new developments, patients with psychiatric disorders began to receive needed psychiatric treatment and rehabilitation.

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

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

The 1990s were known as the *decade of the brain*, with focus placed on neuroscience and brain research. It stimulated a worldwide growth of scientific research and advances, including the following:

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

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

EPIDEMIOLOGY

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

POLICY AND PARITY

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

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

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

PSYCHIATRIC AND MENTAL HEALTH NURSING

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

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

DSM-5 NOMENCLATURE FOR DIAGNOSES AND CLASSIFICATIONS

Blood tests, though useful for diagnosing many physical disorders, cannot diagnose all psychiatric disorders. Instead, healthcare practitioners base their diagnoses primarily on symptoms. Emil Kraepelin was the first healthcare provider to recognize and categorize patients' symptoms into mental disorders around the turn of the 20th century (Boyd, 2018). Today, healthcare providers often use other forms of tests, such as genetic testing, computerized tomography, magnetic resonance imaging, and positron emission tomography, to detect changes in the brain and brain activity.

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

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

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

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

THEORIES RELATED TO PSYCHIATRIC AND MENTAL HEALTH NURSING

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

Freud's psychoanalytic theory

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

Erikson's theory on the stages of human development

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

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

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

Harry Stack Sullivan's interpersonal theory

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

Hildegard Peplau's theory of interpersonal relations

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

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

B.F. Skinner's behavioral theory

Behavioral theories supply techniques that patients can use to modify or replace behaviors. This is an important concept in psychiatric nursing management and is the basis of several approaches that research has shown to be successful in altering specific behaviors. B. F. Skinner, a prominent behaviorist, researched *operant conditioning*, the process through which consequences and reinforcements shape behaviors. Behavioral therapy is grounded in the assumption that maladaptive behaviors can be changed, and positive and negative reinforcements can be used to help modify behavior. Behavioral therapy is often used in treating people with phobias, alcoholism, and anxiety. Another type of behavioral therapy is modeling, in which the therapist or nurse role-plays specific behaviors so that the patient can learn through imitation. Role-playing allows the patient to practice modeled behaviors in a safe environment. Another form of behavioral therapy is systematic desensitization, which targets a patient's specific fears and proceeds in a step-by-step manner to alleviate those fears with the help of relaxation techniques (Keltner, 2018).

Aaron Beck's cognitive behavioral therapy

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

Humanistic Theories

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

THE STRESS-DIATHESIS MODEL

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

BIOLOGICAL MODEL

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

Self-Assessment Quiz Question #1

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

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

ETHICAL, LEGAL, AND CULTURAL CONSIDERATIONS

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

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

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

American Nurses Association Code of Ethics

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

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

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

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

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

Bioethical principles

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

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

Self-Assessment Quiz Question #2

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

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

IMPORTANT LEGISLATION IN MENTAL HEALTH

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

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

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

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

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

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

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

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

mentalillnesspolicy.org/legal/wyatt-stickney-right-treatment.html).

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

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

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

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

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

MENTAL HEALTH AND DEINSTITUTIONALIZATION

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

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

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

THE CONSUMER BILL OF RIGHTS AND CONFIDENTIALITY

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

CONSUMER BILL OF RIGHTS AND RESPONSIBILITIES
The Commission's consumer bill of rights consists of the following rights and responsibilities: 1. Access to Accurate, Easily Understood Information about health plans, facilities, and professionals to assist consumers in making informed health care decisions; 2. Choice of Health Care Providers that is sufficient to ensure access to appropriate high quality care. This right includes providing consumers with complex or serious medical conditions access to specialists, giving women access to qualified providers to cover routine women's health services, and ensuring continuity of care for consumers who are undergoing a course of treatment for a chronic or disabling condition; 3. Access to Emergency Services when and where the need arises. This provision requires health plans to cover these services in situations where a prudent layperson could reasonably expect that the absence of care could place their health in serious jeopardy; 4. Participation in Treatment Decisions including requiring providers to disclose any incentives -- financial or otherwise -- that might influence their decisions, and prohibiting gag clauses that restrict health care providers' ability to communicate with and advise patients about medically necessary options; 5. Assurance that Patients are Respected and Not Discriminated Against, including prohibiting discrimination in the delivery of health care services based on race, gender, ethnicity, mental or physical disability, and sexual orientation; 6. Confidentiality provisions that ensure that individually identifiable medical information is not disseminated and that provide consumers the right to review, copy, and request amendments to their medical records; 7. Grievance and Appeals Processes for consumers to resolve their differences with their health plans and health care providers -- including an internal and external appeals process; and 8. Consumer Responsibilities provisions that ask consumers to take responsibility by maximizing healthy habits, becoming involved in health care decisions, carrying out agreed-upon treatment plans, and reporting fraud.
Note. Adapted from the President's Advisory Commission. (1997). Consumer bill of rights and responsibilities. Retrieved from https://govinfo.library.unt.edu/hcquality/press/cborimp.html

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

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

NURSING LIABILITY IN MENTAL HEALTH

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

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

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

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

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

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

CULTURAL CONSIDERATIONS IN MENTAL HEALTHCARE

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

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

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

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

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

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

NURSING CARE IN MENTAL HEALTH

Standards of practice

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

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

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

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

THE NURSING PROCESS IN MENTAL HEALTH

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

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

Assessment

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

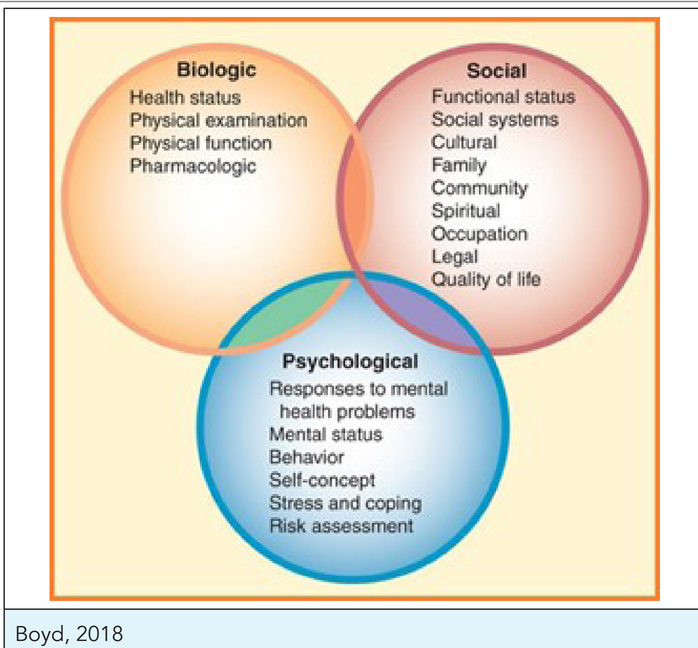
Nursing diagnosis and planning

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

The biopsychosocial framework

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

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



Boyd, 2018

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

THE MENTAL STATUS EXAMINATION

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

Appearance

Appearance includes primarily objective data based on observations of the patient's general appearance. The nurse assesses the patient's overall hygiene and grooming, considering gender, apparent age, height/weight, dress, odors, and tattoos/piercings.

Height and weight should be documented along with nutritional status. The nurse evaluates if the patient looks the stated age since chronological age may not be a reflection of the client's physical/mental status. For example, a patient appears in their 50s, but the actual age is 35, suggesting poor self-care or illnesses (Boyd, 2018).

Behavior

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

Mood and affect

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

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

Thought processes

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

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

Thought content

Thought content refers to what the patient is thinking about. Initially, it is helpful to assess preoccupations or obsessions about real-life events, such as finances, employment, or relationships (Boyd, 2018). Sometimes a patient can experience intrusive or

ruminating thoughts. An intrusive thought is an unwelcome idea that occurs without conscious effort, and ruminative thoughts are thoughts that seem *stuck* in the patient's mind. An obsessive patient may have ruminative thoughts that may be unusual, such as a desire to check the door repeatedly to ensure it is locked or the belief that germs may be everywhere. Obsessive thoughts will often lead to compulsive behaviors – such as ritualized handwashing – in part as an attempt to relieve intrusive thoughts and their accompanying anxiety. The nurse's role is to help the patient understand that these thought processes are irrational.

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

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

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

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

Cognition and memory

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

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

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

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

Insight and motivation

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

Judgment

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

Safety

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

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

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

THE THERAPEUTIC RELATIONSHIP

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

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

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

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

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

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

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

THERAPEUTIC COMMUNICATION

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

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

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

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

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

Table 1. Therapeutic And Nontherapeutic Communication Techniques

Therapeutic	Example
Open-ended question	"How are you feeling?"
Offering self	"I'll sit here with you for a while."
Giving general leads	"Go on … you were saying."
Silence	Sitting quietly.
Active listening	Leaning forward, making eye contact, and being attentive.
Restating	"So, what you're saying is …"
Clarification	"I don't quite understand. Could you explain …"
Making observations	"I notice that you shake when you say that."
Reflecting feelings	"You seem sad."
Encouraging comparisons	"How did you handle this situation before?"
Interpreting	"It sounds like what you mean is …"

Nontherapeutic	Example
Closed-ended question	"Did you do this?"
Challenging	"Just what do you mean by that, huh?"
Arguing	"No. That's not true."
Not listening	Body turned away, poor eye contact.
Changing the subject	(Patient states he is sad.) "Where do you work?"
Being superficial	"I'm sure things will turn out just fine!"
Being sarcastic	"Well, that's not important or anything. Not!"
Using clichés	"All's well that ends well."
Being flippant	"I wouldn't worry about it."
Showing disapproval	"That was a bad thing to do."
Ignoring the patient	"Did anyone see the news today?"
Making false promises	"I'll make the doctor listen to you!"
(Boyd, 2018)	

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

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

Table 2. Defense Mechanisms

Defense Mechanism	Definition	Example
Repression	Involuntarily forgetting painful events.	A woman who was sexually abused as a child cannot remember that it occurred.
Suppression	Voluntarily refusing to remember events.	An emergency room nurse refuses to think about the child who is dying from injuries sustained in an auto accident.
Denial	Refusing to admit certain things to oneself.	An alcoholic man refuses to believe that he has a problem, in spite of evidence otherwise.
Rationalization	Trying to prove one's actions are justifiable.	A student insists that poor academic advice is the reason he cannot graduate on time.
Intellectualization	Using logic without feelings.	A father analyzes why his son is depressed without expressing any emotions of concern.
Identification	Attempting to model one's self after an admired other.	An adolescent tries to look and dress like his favorite musician to feel stronger and more in control.
Displacement	Discharging pent-up feelings (usually anger) on another.	A child who is yelled at by her parents goes outside and kicks the dog.
Projection	Blaming someone else for one's thoughts or feelings.	A jealous man states that his wife is at fault for his abuse of her.
Dissociation	Unconsciously separating painful feelings and thoughts from awareness.	A rape victim "goes numb" and feels like she is floating outside of her body.
Regression	Returning to an earlier developmental level.	A 7-year-old child starts talking like a baby after the birth of a sibling.

Table 2. Defense Mechanisms continued		
Compensation	Covering up for a weakness by overemphasizing another trait.	A skinny, nonathletic child becomes a chess champion.
Reaction formation	Acting exactly opposite to an unconscious desire or drive.	A man acts homophobic when he secretly believes he is gay.
Introjection	Taking on values, qualities, and traits of others.	A 12-year-old girl acts like her teacher when the teacher is out of the room.
Sublimation	Channeling unacceptable drives into acceptable outlets.	An angry woman joins a martial arts club and takes lessons.
Conversion	Converting psychiatric conflict into physical symptoms.	A lonely, elderly woman develops vague aches and pains all over.
Undoing	Trying to counteract or make up for something.	A man who yells at his boss sends her flowers the next day to “make up.”
(Boyd, 2018)		

Denial

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

Repression and suppression

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

Displacement

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

Rationalizing

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

Identification

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

Self-Assessment Quiz Question #3

Which best describes the meaning of defense mechanisms?

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

THERAPEUTIC APPROACHES IN MENTAL HEALTH

Milieu therapy

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

Care of patients in the therapeutic milieu is directed by an interdisciplinary treatment team, but overall management is the responsibility of the nurse. The initial assessment is made by the nurse or psychiatrist and the comprehensive treatment is

developed by the treatment team. Basic assumptions of milieu therapy include the opportunity for therapeutic intervention, the powerful use of peer pressure within the environment, and inappropriate behavior can be addressed as it occurs (Boyd, 2018).

There are certain conditions that promote a therapeutic community.

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

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

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

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

Self-Assessment Quiz Question #4

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

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

Group therapy

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

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

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

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

Psychoeducational groups

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

Cognitive-behavioral therapy (Individual therapy)

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

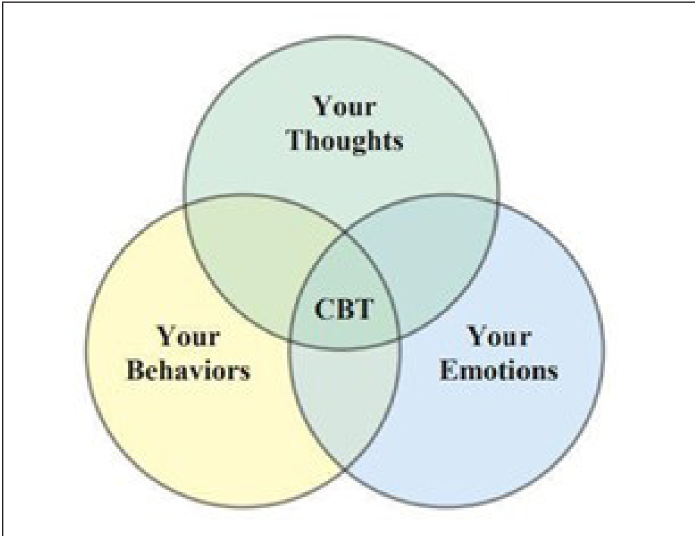
> *Imagine you are driving down the interstate at 75 miles per hour. You check your rear-view mirror and see the flashing*

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

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

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

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



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

Family therapy (Social theory)

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

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

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

Community support groups (Social theory)

Many community support groups exist to help individuals who are experiencing specific mental health problems. Groups exist for gambling addiction, rape and sexual abuse support, bipolar disorder, depression, grief and bereavement, suicide, attention deficit disorder, PTSD, substance abuse, and many more. Support groups differ from therapy groups in several important ways. Support groups are a network of members with similar traits or characteristics; support groups are leaderless – they may have a nominated leader, but that person is also a victim or patient and a group member; support groups are not

managed by a healthcare professional; support groups are free or have minimal cost; support groups may meet less frequently than therapy groups but for a longer period of time (years to indefinitely); and support groups are usually self-sustaining. If members lose interest, the group can't find a place to meet, or membership wanes, then the group may end (https://www.frontiersin.org/articles/10.3389/fpsyt.2021.714181/full).

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

Self-Assessment Quiz Question #5

Which of the following is considered a support group?

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

BRAIN ANATOMY AND PHYSIOLOGY

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

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

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

NEUROTRANSMITTERS

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

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

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

Dopamine

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

Serotonin

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

Norepinephrine

Norepinephrine is a neurotransmitter found in various parts of the brain and the brainstem. Norepinephrine regulates mood, cognition, perception, sleep, arousal, and cardiovascular status (Stahl, 2020). Excess levels can trigger a fight-or-flight response and long-term elevations are associated with mania and anxiety. When norepinephrine is depleted, depression can occur.

Research suggests that norepinephrine plays a role in the chronic pain that can accompany depression. Medications that increase the messages or actions of receptors that involve norepinephrine are usually antidepressants.

Gamma-Aminobutyric Acid

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

Glutamate

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

Self-Assessment Quiz Question #6

Dopamine is responsible for which of these symptoms?

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

PSYCHOPHARMACOLOGY AND THE BRAIN

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

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

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

Classifications in psychopharmacology

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

Complementary and alternative therapies in mental health

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

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

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

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

Ginseng (*Panax ginseng*) is a stimulating herb that can produce energy similar to caffeine, meant to result in improved endurance and reduced fatigue. Jitteriness and nervousness can be side

effects of this supplement, as can insomnia, hypertension, restlessness, and, possibly, mania.

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

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

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

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

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

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

Hypnosis is a technique that induces a deep relaxation and calm, trance-like state of mind. The patient's focus of awareness becomes so restricted that external noise and distractions are no longer present in the conscious mind. Hypnotherapy is practiced by highly trained clinicians, often psychologists, to achieve certain therapeutic goals with the patient, such as recovering memories lost through the defense mechanism of repression, learning to be less anxious when faced with anxiety-provoking situations, or reducing or eliminating undesirable behavior such as smoking. The patient undergoing hypnotherapy must be relaxed and receptive to the procedure (https://positivepsychology.com/hypnotherapy/).

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

Self-Assessment Quiz Question #7

Which complementary alternative medicine interferes with anticoagulants?

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

Self-Assessment Quiz Question #8

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

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

OTHER THERAPIES IN MENTAL HEALTH

Electroconvulsive therapy

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

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

Transcranial magnetic stimulation

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

Vagus nerve stimulation

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

Case study 1

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

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

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

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

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

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

Questions

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

Responses

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

Case study 2

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

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

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

Questions

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

Responses

1. Panic attacks and panic disorder are treatable and respond well to medications and therapy. Cognitive-behavioral therapy is indicated to help this patient learn to identify

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

Case study 3

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

Questions

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

Responses

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

Healthcare Considerations

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

Conclusion

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

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

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

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BASIC PSYCHIATRIC CONCEPTS

Self-Assessment Answers and Rationales

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

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

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

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

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

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

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

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

BASIC PSYCHIATRIC CONCEPTS

Final Examination Questions

Select the best answer for each question and mark your answers on the Final Examination Answer Sheet found on page 145 or complete your test online at **EliteLearning.com/Book**

51. The nurse is explaining milieu therapy to a group of students. What is the primary role of the nurse in milieu therapy?
    a. Conducts individual group and family Therapy.
    b. Directs drama that portrays real life situation.
    c. Assumes responsibility for management of the milieu.
    d. Focuses on rehabilitation and vocational training.

52. Patients admitted to inpatient psychiatric units are scheduled for group therapy two times daily. Attendance is strongly encouraged, but not mandatory. Which ethical principle is demonstrated by this unit policy?
    a. Autonomy.
    b. Justice.
    c. Beneficence.
    d. Veracity.

53. Which behavior should the nurse expect to see in a patient in the termination phase of group development?
    a. Grief behaviors.
    b. Focus on group tasks.
    c. Development of trust.
    d. Group cohesion.

54. A charge nurse is managing a psychiatric unit. Which situation violates veracity?
    a. Providing outpatient resources to support recovery.
    b. Refusing to give personal information to an outside caller.
    c. Coaxing a patient into seclusion when medication is refused.
    d. Treating all patients equally regardless of illness.

55. A nurse is interviewing a patient during the initial assessment. Which communication technique is most appropriate?
    a. Change the subject.
    b. Use open body posture.
    c. Ask why when gathering information.
    d. Use self disclosure.

56. Which response is most therapeutic when a patient reports being abandoned as a child during the initial assessment?
    a. "That must have been a terribly painful experience."
    b. "I too have been disappointed by important people in my life."
    c. "People will often let you down."
    d. "Why do you think that happened?"

57. A nurse gives the wrong medication to a newly admitted patient. Which legal principle does this demonstrate?
    a. Assault.
    b. Battery.
    c. Malpractice.
    d. Negligence.

58. Which statement best describes the primary goal for all patients with mental health disorders in the milieu?
    a. Achieves the highest level of functioning in the least restrictive environment.
    b. Returns home after stabilization
    c. Anxiety decreases during first 24 hours of admission
    d. Intense therapy eases transition for acutely ill patients

59. The nurse is caring for a patient who states, "You look just like a person I used to date." This is an example of which communication principle?
    a. Counter- transference.
    b. Seducer.
    c. Self- disclosure.
    d. Transference.

60. A mental health nurse tells a patient that their scheduled meeting will begin in 15 minutes. The nurse is called off the unit and returns in an hour, but apologizes for being late. Which component of the therapeutic relationship would most likely be influenced?
    a. Confidentiality.
    b. Boundaries.
    c. Trust.
    d. Autonomy.

Course Code: ANCCFL06PC

Crisis Resource Management for Healthcare Professionals

3 Contact Hours

Release Date: January 31, 2022

Expiration Date: January 31, 2025

Faculty

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

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

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

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

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

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

Course overview

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

Learning objectives

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

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

How to receive credit

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

CE Broker reporting

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Activity director

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

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

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

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

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

History of crisis resource management

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

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

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

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

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

Self-Assessment Quiz Question #1

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

THE CRM FRAMEWORK

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

Components of the CRM framework

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

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

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

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

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

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

Self-Assessment Quiz Question #2

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

Team management

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

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

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

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

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

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

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

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

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

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

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

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

Many institutions have an internal disaster and emergency response plan. In today's changing world, there is a need for emergency responses of healthcare teams, for situations such as natural disasters (earthquakes, hurricanes, tornadoes), mass casualty events (train derailments, plane crashes, mass shootings, terrorist attacks) and infectious disease epidemics (COVID, Ebola). Internal disasters include events such as a power outage, infant abduction, or a combative patient. The Joint Commission requires hospitals receiving Medicare and Medicaid reimbursements to have established disaster planning and health system readiness, for disaster management (Al Harthi et al., 2020; Lagan et al., 2017). Plans can be developed

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

Self-Assessment Quiz Question #3

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

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

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

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

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

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

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

Self-Assessment Quiz Question #4

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

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

Communication

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

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

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

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

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

LIP: What is the concentration?

Nurse: 1 mg in 1 mL.

Physician: Yes. Please administer now.

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

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

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

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

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

Joe (*medical student*): Yes.

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

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

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

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

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

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

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

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

H's

- Hypovolemia.
- Hypoxia.
- Hydrogen ion (acidosis).
- Hypoglycemia.
- Hypo/Hyperkalemia.
- Hypothermia.

T's

- Tension pneumothorax.
- Tamponade, cardiac.
- Toxins.
- Thrombosis-pulmonary.
- Thrombosis-coronary.
- Trauma.

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

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

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

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

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

Self-Assessment Quiz Question #5

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

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

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

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

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

Anesthesiologist: Are they equal?

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

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

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

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

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

Anesthesiologist: Yes, bag mask ventilation is effective.

Leader: Let me know when you secure the airway.

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

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

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

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

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

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

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

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

Self-Assessment Quiz Question #6

The participants must assess collateral conversations regarding their necessity and:

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

Resource allocation and environmental awareness

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

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

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

Self-Assessment Quiz Question #7

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

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

Dynamic decision-making in a crisis

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

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

Situational Awareness

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

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

MD: The current rhythm is still PEA.

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

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

Self-Assessment Quiz Question #8

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

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

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

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

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

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

RN: No alert bracelet is on the patient.

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

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

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

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

Table 1. The Three Levels of Situation Awareness

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

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

Resources

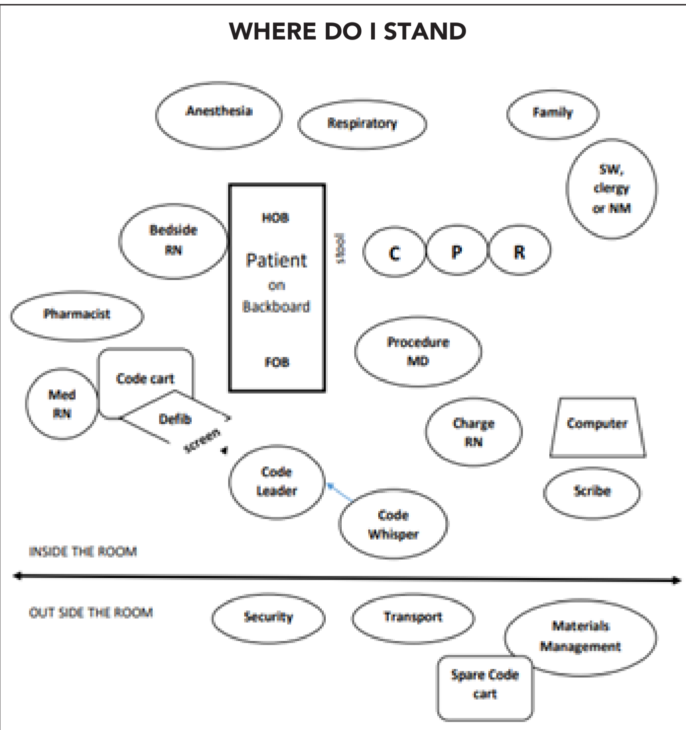
Responders to a crisis must rely on multiple facets of information, including memory, past experiences, and established standards of care, to provide the necessary interventions during the emergency. Each team member needs to be able to obtain and process the information to prioritize care. Information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

Cognitive aids

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

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

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



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

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

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

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

Self-Assessment Quiz Question #9

"Where Do I Stand" is an example of a:

a. Cognitive aid.
b. Response algorithm.
c. Mnemonic device.
d. National response tool.

Fixation errors

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

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

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

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

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

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

Self-Assessment Quiz Question #10

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

SPECIALTY TEAM MEMBER ROLES

Nursing

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

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

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

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

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

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

Pharmacists and respiratory therapists

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

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

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

Case study #1

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

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

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

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

Helen: No, it is all over the room.

Sarah: Helen, please shut the door.

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

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

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

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

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

Dotty hears this and runs to get the evacuation plan.

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

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

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

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

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

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

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

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

Case study #2

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Liz documents the time of shock.

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

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

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

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

Question

What examples of communication were demonstrated in this case study?

Discussion

Communication techniques demonstrated:

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

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

Question

What other team roles were demonstrated in this case study?

Discussion

Other Team roles demonstrated in the case study:

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

Question

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

Discussion

Other examples of CRM within the case study:

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

Conclusion

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

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CRISIS RESOURCE MANAGEMENT FOR THE HEALTHCARE PROFESSIONALS

Self-Assessment Answers and Rationales

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

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

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

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

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

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

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

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

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

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

CRISIS RESOURCE MANAGEMENT FOR THE HEALTHCARE PROFESSIONALS

Final Examination Questions

Select the best answer for each question and mark your answers on the Final Examination Answer Sheet found on page 145, or complete your test online at **EliteLearning.com/Book**

61. CRM in healthcare was first implemented in operating rooms and:
    a. Emergency departments.
    b. Delivery rooms.
    c. Pediatric rapid response units.
    d. Medical school curriculum.

62. The major realms of the crisis resource management framework include communication; resource allocation and environmental awareness; dynamic decision-making and cognitive aids; and:
    a. Fixation.
    b. Debriefing.
    c. Team management.
    d. Blame allocation.

63. Leaders in a medical emergency response should:
    a. Be clearly defined.
    b. Be randomly assigned.
    c. Always be the most senior provider.
    d. Perform the complicated procedures.

64. For the best effective outcome, the roles of responders in an emergent situation are:
    a. Always self-chosen by the individual responder.
    b. Filled by the person most competent to complete the task as defined by scope of practice in the practice state and institution.
    c. Randomly assigned by any team member.
    d. Rotated so all have opportunity for practice in each role.

65. A series of communications around a specific task, throughout all steps of the task, is called:
    a. Collateral communication.
    b. Open communication.
    c. Closed-loop communication.
    d. Confirming communication.

66. Frequent summaries of the event that include what has occurred, what is planned, and a request for input from all team members is called:
    a. Closed-loop communication.
    b. State of the union communication.
    c. Collateral communication.
    d. Stop the line communication.

67. A shared mental model refers to the summarization of events and:
    a. Naming of the situation
    b. Converting medication doses mentally.
    c. Understanding the social implications of the situation.
    d. Visualizing of the disease process.

68. Having the clinic receptionist go to the main entrance to meet the response team is an example of:
    a. Clarifying team member roles
    b. Allocating personnel resources.
    c. Removing unnecessary personnel.
    d. Calling for assistance.

69. An example of a nursing role on the team's response to a medical emergency is:
    a. Medication administration.
    b. Chest tube placement.
    c. Patient transport.
    d. Patient intubation.

70. In which field did crisis resource management begin?
    a. Entertainment.
    b. Healthcare.
    c. Aviation.
    d. Finance.

Course Code: ANCCFL03CR

Management of Atrial Fibrillation (AF) for Nurses

1 Contact Hour

Release Date: November 5, 2021

Expiration Date: November 5, 2024

Faculty

Therese Jamison, DNP, ACNP-BC, is the founding director of nursing at Lawrence Technological University. She earned her Doctor of Nursing Practice (DNP) from Vanderbilt University and was formerly educated at The University of Michigan (post master's acute care nurse practitioner) and Wayne State University (MSN and BSN). She has been an associate of Ascension-St John-Providence Health Care System since 1981. Dr. Jamison has spent her entire nursing career in critical care nursing with an emphasis on caring for patients with cardiac illnesses. She is currently practicing as an acute care nurse practitioner (ACNP) in cardiovascular surgery (since 2005) and formerly in cardiology since 1998. Dr. Jamison has an extensive history as an educator for undergraduate (BSN) as well as primary and acute care nurse practitioner students since 1994. She has presented extensively at local, regional, and national forums on topics of nursing practice with a focus on cardiology, nursing education, and quality improvement initiatives.

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

Reviewer: Robin McCormick, DNP, RN, is an Assistant Professor at Troy University. She earned her Doctor of Nursing Practice (DNP) from Troy University and formerly was educated at The University of South Alabama (MSN in nursing education/adult health clinical nurse specialist) and Troy University (BSN). She spent her clinical nursing career in critical care nursing, specifically cardiovascular surgery, and critical care step-down areas. She has served as an educator for undergraduate (ASN) students since 2016. She has presented at local, regional, and national forums on topics of nursing practice with a focus on nursing education, quality improvement initiatives, and vulnerable populations.

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

Course overview

Atrial fibrillation is a common healthcare problem. This course reviews the concepts of cardiac output, risk factors for atrial fibrillation (AF), classifications of AF, the pearls of obtaining a history and physical of a patient with AF, diagnostic testing, and the overall implications for pharmacologic management. Prescribing guidelines will be presented in subsequent courses. Nursing considerations and evidence-based practice guidelines are included in this course.

Learning objectives

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

- Describe the pathophysiology of atrial fibrillation (AF) regarding cardiac output.
- Define the risk factors for the development of AF.
- Relate the history and physical assessment for AF to case studies.
- Identify the diagnostic evaluation for AF.
- Distinguish between paroxysmal, persistent, and permanent/chronic atrial fibrillation.
- Describe the complications of AF.
- Discuss the basic principles of pharmacologic management of AF.

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

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

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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

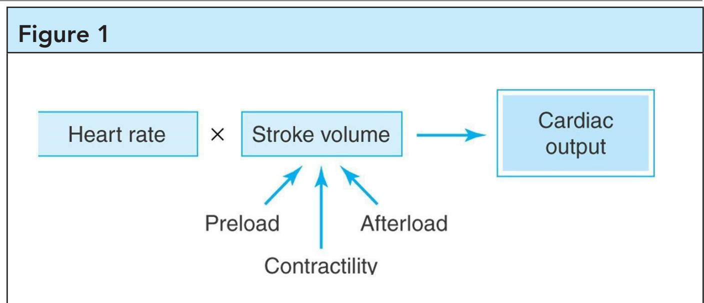
Atrial fibrillation (AF) is the most common arrhythmia that healthcare providers manage, having a significant financial burden of approximately $26 billion in the United States. The lifetime risk of developing AF is one in four with age being the predominant risk factor. Seventy-five percent of patients aged 65 or older will develop AF (Kotecha et al., 2016; Pilgrim, 2018). By the year 2030, the incidence of AF is predicted to increase to 12 million (Chung et al., 2020).

AF requires a trigger, such as enhanced focal automaticity in the atrial tissue. Normally, the sinoatrial (SA) node is the pacemaker of the heart second to the highest number of automated cells in this location of the right atrium. Yet with AF, multiple wavelets of enhanced automaticity usurp the pacemaker function of the SA node, causing chaotic depolarizations throughout the atrium. Furthermore, left atrial enlargement and stretch lead to atrial fibrosis with resultant electrical remodeling (Walsh & Caple, 2018).

CONCEPTS OF CARDIAC OUTPUT

To understand AF, one needs to understand the concept of cardiac output. Cardiac output is a measure of the amount of blood pumped from the heart each minute (Banasik & Copstead, 2018). Cardiac output, by definition, equals heart rate times stroke volume, as shown in Figure 1.

Figure 1



Heart rate

The release of norepinephrine by the sympathetic nerve endings and epinephrine released from the adrenal gland are the main contributing factors to heart rate (Banasik & Copstead, 2018; Honan, 2019). Exogenous agents, such as nicotine and caffeine, have a sympathomimetic effect on the heart rate, hence increasing it. Under normal resting conditions, the heart rate is under the influence of the parasympathetic influence, thus maintaining the resting heart rate at 70 (Banasik & Copstead, 2018; Honan, 2019).

Heart rate control is the mainstay first-line management for AF. This is especially important in patients with ischemic heart disease, since anginal symptoms are exacerbated with fast heart rates. This concept is related to the coronary sinus being perfused during diastole. The faster the heart rate, the shorter time in diastole and less time for coronary artery perfusion (Banasik & Copstead, 2018; Honan, 2019).

Nursing Consideration: The heart rate of the patient with ischemic heart disease should be kept low to maximize diastolic filling time and coronary artery perfusion. Rather than assessing just heart rate, the nurse should assess for hypotension, dizziness, fatigue level, functional status, etc. These aspects are better indicators of overall tolerance than just the patient's heart rate, as some patients may have lower heart rates with no ill side effects. Providers should give parameters on when to give or hold pharmacologic agents.

Stroke volume

Stroke volume has three components: Preload; afterload; and contractility. Preload is the volume of blood returning to the heart. It is a function of venous return and compliance. The Frank-Starling law applies to preload and states that the stroke volume of the heart increases in response to an increase in volume of blood in the ventricles. As a larger volume of blood flows into the ventricle, the blood stretches the cardiac muscle fibers, leading to an increase in the force of contraction. Thus, when the heart's volume increases, stroke volume increases (Banasik & Copstead, 2018; Honan, 2019). Clinically, preload can be seen as the "filling pressures" of the heart, such as central venous pressure (CVP) and pulmonary artery wedge pressure (PAWP). One can decrease preload by giving vasodilators and diuretics; conversely, preload is increased with fluids.

Afterload is resistance. Left ventricular afterload is determined primarily by aortic blood pressure. Hence the resistance, or afterload, that the left ventricle must overcome to eject its volume is based on the pressure against the left ventricle from the aortic blood pressure (Banasik & Copstead, 2018; Honan, 2019). Three determinants that create this resistance are aortic impedance (aortic stenosis), systemic vascular resistance (HTN), and volume/viscosity (dehydration). Thus, a patient with HTN has more resistance (higher afterload). Pharmacologic management focuses on decreasing afterload. Over time, high levels of afterload lead to left ventricular hypertrophy. Conversely, patients in septic shock have decreased afterload since the systemic vasculature is dilated from endotoxins. Therefore, the mainstay treatment for septic shock is to maximize volume (preload) by giving fluids and treating the underlying cause.

The last component of stroke volume is the contractility of the heart. This is often referred to as its "inotropic" action (Banasik & Copstead, 2018; Honan, 2019). Clinically, contractility can be measured as the ejection fraction (EF) using an echocardiogram, transesophageal echocardiogram, or cardiac catheterization. The ejection fraction is the percent of blood ejected from the ventricles with each beat. A normal EF is 50% to 70% (not all blood is ejected from the ventricle at one time). Patients with systolic heart failure have an EF less than 40%. These patients have less blood ejected with each beat, resulting in the symptoms of left- and right-sided heart failure (backward flow).

Active atrial contractions immediately before ventricular systole (ejection) act to increase the efficiency of ventricular ejection second to acutely increasing preload. These atrial contractions are known as "atrial kick." Atrial kick accounts for approximately 20% of cardiac output, hence, when patients develop AF with chaotic atrial contractions, 20% of cardiac output is lost.

Nursing Consideration: It is important to understand cardiac output when managing a patient who develops AF. The fast heart rates can compromise diastolic filling, thereby decreasing coronary artery perfusion. Also, a loss of atrial kick will affect cardiac output by 20%. Patients with low EFs will experience greater hemodynamic compromise from this loss of atrial kick. Low volume states will decrease preload (volume) and increase afterload (resistance), affecting hemodynamic stability.

RISK FACTORS FOR AF

There are numerous risk factors for developing AF. A change in the heart structure (chambers, valves, lining, etc.) will change the heart's function, thus changing the electrical excitability. Rather than memorizing the etiologies, think back to the "why" or "how" the heart changes (Table 1). In addition, patients may present with only one risk factor or have multiple co-morbid conditions that contribute to developing AF and remaining in AF.

One co-morbid condition that requires specific attention is the incidence of AF in heart failure (HF). Approximately one-third of all HF patients have AF. More specifically, the prevalence of AF increases with HF severity, ranging from 5% in mild HF to 50% in severe HF. In heart failure with a preserved ejection fraction (diastolic failure), the prevalence of AF is 60% (Patel et al, 2020). Again, the concept of heart structure changing heart function assists the provider to recall why this incidence is so prevalent.

Table 1 Risk Factors AF

Factor (risk, precipitating)	Why/How
Age	Structural heart disease
Lifestyle. Alcohol (holiday heart syndrome). Substance abuse. Smoking. Intense physical exercise. Obesity.	Holiday heart syndrome is related to binge drinking on weekends or holidays, typically in people without heart disease. Substance abuse, such as cocaine and even over-the-counter cough and cold medications, can cause a sympathomimetic effect on the heart. Intense physical exercise, as related to dehydration and electrolyte imbalance, can precipitate AF. Obesity increases the workload on the heart, resulting in structural heart disease. See the Evidence- Based Practice box below.

Table 1 Risk Factors AF continued	
Factor (risk, precipitating)	**Why/How**
Structural heart disease: • Sick sinus syndrome. • Left atrial enlargement. • Valvular heart disease/rheumatic heart disease. • Cardiomyopathy. • Atrial myxoma. • Atrial septic defects. • Pericardial disease. • Hypertension (HTN).	**Concept**: Structural heart disease changes the heart's function and thus the heart's electrical activity.
Ischemic heart disease.	**Concept**: Ischemic tissue is irritable tissue, and irritable tissue is arrhythmiac tissue.
Non-cardiac causes: • Acute infections (sepsis). • Electrolyte depletion. • Diabetes mellitus. • Pulmonary embolism. • Obstructive Sleep Apnea (OSA). • Hyperthyroidism/thyrotoxicosis. • Anemia. • Post-operative. • Idiopathic (lone AF).	Metabolic stress (sepsis, acute infections, thyroid) activates the neurohumoral cascade. Electrolyte depletion affects the NaK-ATPase pump (keep potassium >/equal to 4.0; magnesium >/equal to 2.0), recall magnesium is the co- factor for the NaK-ATPase pump, hence normal potassium can be obtained by a normal magnesium
Cardiothoracic surgery.	High catecholamine release, including the perioperative period and critical illness. Volume overload during surgery increases preload; diuretics are given after surgery to reduce atrial inflammation.
European ancestry and family history.	Genetic variation.
Family history.	Genetic variation.
(Chung et al., 2020; Kotecha et al., 2016; Walsh & Caple, 2018)	

Evidence-based practice! A systematic review and meta-analysis were performed on the potential link between obesity and the incidence of AF. This meta-analysis included data from 51 studies, with 626,603 individuals contributing to the data. There was a 29% and 19% greater excess risk of incidence of AF for every 5-U BMI increase in cohort and case-control studies, respectively. Similarly, there were 10% and 13% greater excess risks of post-operative and post-ablation AF for every 5-U increase in BMI, respectively (Wong et al., 2016).

AF CLASSIFICATIONS

The clinical type of AF is documented according to the length of time in AF. The four categories used to describe AF are: Paroxysmal; persistent; long-standing persistent; and permanent (Morillo et al., 2017; Walsh & Caple, 2018)

Paroxysmal AF: AF that terminates spontaneously or with intervention within 7days of onset. Episodes may recur with variable frequency.

Persistent AF: Continuous AF that is sustained greater than 7 days.

Long-standing persistent: Continuous AF of greater than 12 months duration.

Permanent AF: A diagnosis made when there has been a joint decision by the patient and clinician to cease further attempts to restore and/or maintain sinus rhythm.

Nonvalvular AF: AF in the absence of rheumatic mitral stenosis, a mechanical or bioprosthetic heart valve, or mitral valve repair.

Lone AF: Typically seen in younger patients without symptoms and structural heart disease who have normal ECG finding.

IMPLICATIONS FOR OBTAINING THE HISTORY AND PHYSICAL

The implications for taking a health history on a patient with AF are extensive. The clinical presentation can span a spectrum of the patient being asymptomatic to a patient with hemodynamic instability with the signs and symptoms of cardiogenic shock. This wide range can be related to acute loss of atrial kick and compromised EF.

Initial history should include the following:

- Assessment of type, duration, onset, and frequency of symptoms (presence of palpitations [pounding or fluttering], lightheadedness, syncope, pre-syncope, fatigue, dyspnea, chest pressure/heaviness/pain, decreased exercise tolerance).
- Estimation of how often and how long the episodes last.
- Assessment of precipitating factors or triggers (i.e., exertion, sleep, caffeine, alcohol use).
- Assessment of modes of termination (i.e., vagal maneuvers, "pill in the pocket," self-terminating).
- Documentation of the prior use of antiarrhythmics and/or rate-controlling agents.

- Assessment of the presence of underlying heart disease (i.e., structural, ischemic); family history of AF.
- Documentation of any previous interventions (cardioversion,) surgical or percutaneous, AF ablation procedures such as maze procedures.

(Morillo et al, 2017; Pilgrim, 2018).

The physical examination should prioritize the following:

- Airway, breathing, and circulation (ABCs) for hemodynamic stability.
- Vital signs, with a focus on heart rate, blood pressure, respiratory rate, and oxygen saturation. Ideally, obtain the patient's baseline vital signs to better understand variations from baseline and to manage pharmacological agents.
- Evaluation of head and neck: Presence of JVD second to heart failure.
- Lungs: Presence of pulmonary vascular congestion, such as crackles.
- Heart: PMI displaced laterally; S3, S4; regularity (the heart rate is described as an "irregular, irregularity"; the hallmark of AF).
- Lower extremities: Edema related to heart failure, color, strength of pulses.
- Nervous system: To evaluate the presence of ischemic stroke caused by thrombus migration to the brain from the left atrium (Pilgrim, 2018).

ACROSS THE SPECTRUM: DIAGNOSTIC EVALUATION

The diagnostic evaluation for AF can vary, yet typically includes the following tests. To be cognizant of cost, it is best to start simple and proceed to complex. Contacting the patient's primary care provider or cardiologist to prevent repeat testing will also help reduce cost.

Laboratory testing

- Comprehensive metabolic panel (CMP) provides data on the presence of electrolyte imbalance, kidney function, liver function, etc.
- Thyroid studies, including thyroid stimulating hormone (TSH), Free T4, to rule out hyperthyroidism.
- Complete blood count (CBC) to rule out anemia, infectious etiology of AF, and baseline platelet count.
- Coagulation screening is useful to assess suitability for anticoagulation as well as antiplatelet therapy.
- C-Reactive Protein (CRP) presence of inflammation, as related to myocarditis, pericarditis, cardiac surgery, sepsis, etc.
- B-type natriuretic peptide (BNP), a hormone released when there are changes in the pressure of the heart, such as with higher preload and/or congestive heart failure.
- Troponin to r/o ischemic etiology of AF.
- Drug screen to identify illicit drugs.

(Pilgrim, 2018; Walsh & Caple, 2018).

Diagnostic testing

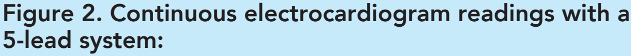
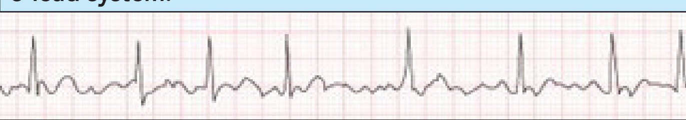


Figure 2. Continuous electrocardiogram readings with a 5-lead system:



- Typically, irregular ventricular rate (QRS complexes).
- Absence of discrete P waves, replaced by irregular, chaotic f waves (the stimulus is not being initiated by the SA node; these f waves signify depolarizations of 300 per minute).
- Heart rate (typically 110-140 beats/min, may go to 160-170 beats/min).

A 12-lead electrocardiography (ECG) provides more data, including the following:

- Aberrantly conducted beats after long-short R-R cycles (i.e., Ashman phenomenon).
- Left, right, or bi-atrial enlargement (notched p waves, best seen in Lead II and V1). Atrial enlargement can predispose the patient to AF.
- Left ventricular hypertrophy (LVH; R wave in AVL + S wave in V3 > 20-24 mm). LVH is a form of structural heart disease.
- Bundle-branch block (right or left) or intraventricular conduction delay (prolonged QRS without the right or left bundle branch pattern).
- Acute or prior myocardial infarction (MI): Acute MI will have evidence of ST elevation or ST depression in contiguous leads; prior MI will have the presence of a Q wave (1/3 to ¼ the height of the R wave and 0.4 seconds wide).

(Banasik & Copstead, 2018; McCance & Huether, 2019; Morillo et al, 2017; Pilgrim, 2018)

Diagnostic testing: Beyond the ECG

Other diagnostic testing for AF includes a chest X-ray, Holter monitor, echocardiogram, a transesophageal echocardiography (TEE), electrophysiology studies (EPS), and stress testing. These diagnostic tests assist the clinician in obtaining the differential diagnosis for the presence of AF, to manage the comorbid conditions, as well as the sequelae of AF. The chest X-ray is used to evaluate the presence of pneumonia, COPD, vascular congestion, and cardiomegaly.

Holter monitor/event recorder can be utilized in an outpatient setting to obtain the diagnosis of AF not found on telemetry or a 12-Lead. The echocardiogram identifies the presence of left ventricular hypertrophy (LVH), left atrial enlargement (LAE), ejection fraction (EF), presence of diastolic dysfunction, wall motion abnormalities (ischemic tissue, reported as akinetic, hypokinetic, dyskinetic), valvular heart disease, and estimation of pulmonary systolic pressure, i.e., pulmonary hypertension (Pilgrim, 2018: Walsh & Caple, 2018). Transesophageal echocardiography (TEE) is helpful for the following applications: 1.) evaluate for an atrial thrombus, particularly in the left atrial appendage, 2.) guide cardioversion (if thrombus is seen, cardioversion should be delayed), and 3.) the evaluation of the extent of valvular disease. Electrophysiology studies are used to map the electrical activity of the heart. During these studies, the team can stimulate the heart to create faster or slower rhythms. The mapping of the heart can determine the best location to apply cardiac ablation to control AF. The ablation, if effective, will create scar tissue to prevent further arrhythmias. Keep in mind that the ablation may not convert the patient from AF until the scar tissue has time to form, thus teaching the patient/family will lessen anxiety if the patient is not in NSR after the ablation.

Stress testing is used to rule out ischemic etiology. If the patient's risk factors do not indicate an ischemic etiology, this testing may not be indicated or can be delayed. A cardiac catheterization may be utilized to assess if ischemic heart disease is one of the etiologies of AF. In addition to assessing the coronary vasculature, the EF can be calculated. Typically, if the patient has a positive stress test that indicates stress-induced ischemia (SII), a cardiac catheterization is then performed to identify the extent of disease and EF (Banasik & Copstead, 2018)

COMPLICATIONS OF AF

Decreased cardiac output will depend on multiple factors, including the extent of structural heart disease, age, and functional status of the patient. As noted, the patient may be hemodynamically unstable based upon these factors, as well as very symptomatic (chest pain, dyspnea, hypotension, etc.).

Cardiogenic shock may be a result of AF. Thromboembolic events are prevented through anticoagulation. Quality-of-life issues are related to time in AF, reoccurrence of AF, persistence of symptoms, frequency of hospitalizations/office visits, extent of diagnostic testing, cost to the patient, etc.

PHARMACOLOGIC MANAGEMENT

The pharmacologic management of AF is complex since numerous agents can be used. To keep concepts simple, the acronym RACE is used:

R is for **rate** control.

A is for **antiarrhythmic** medications.

C is for **anticoagulation**.

E is for **evaluation**.

The 2016 quality guidelines were updated in 2020 (Heidenreich et al., 2021) for managing patients as reported under the purview of the American Heart Association (AHA) and The American College of Cardiology (ACC). For rate control, rhythm control, and anticoagulation, numerous factors must be taken into consideration including, yet not limited to: Age; length of time in AF; presence of heart failure (preserved or reduced); other co- morbid conditions; pharmacologic agent's potential to prolong the QT interval; side effect profile; and potential for pharmacokinetic interactions (drug-drug and drug-nutrient interactions). An interdisciplinary heart team should determine the best classes of medication to utilize.

Rate control

The first-line agents for rate control are beta-blockers and calcium channel blockers (CCB; non-dihydropyridine class). When controlling the ventricular response of AF, beta-blockers and CCB can be enough to convert AF back to normal sinus rhythm (NSR) since the SA node resumes its function as the pacemaker of the heart. Use caution with beta-blockers and CCB in decompensated heart failure since they have a negative inotrope action (negative force of contraction). Even if using cardioselective beta-blockers (metoprolol, atenolol), in higher doses the cardio-selectivity is lost, affecting the heart's inotrope. The main effect of beta-blockers and CCB for the management of AF is a negative chronotropic (rate) effect and negative dromotropic effect (conduction velocity). Other agents can be used, such as digoxin, although it is reserved for heart failure patients or those with hypotension who do not respond to beta blockers/CCB (Chung et al., 2020; Frost et al., 2017; Walsh & Caple, 2018).

Rhythm control

The conversation on determining which agents are utilized for rhythm control is more complex. The major question here focuses on whether the patient has structural heart disease. If a patient has no structural heart disease, dofetilide, flecainide, propafenone, sotalol, and amiodarone can be used (as well as catheter ablation). If the patient has structural heart disease with coronary artery disease, the agents that can be utilized are dofetilide, dronedarone, sotalol, and amiodarone (Chung et al., 2020; Frost et al., 2017; Walsh & Caple, 2018).

With a patient in heart failure, the choices are limited to amiodarone and dofetilide. The reasoning behind which agents to use in the cases where structural heart disease is present and, specifically with heart failure, is based on their arrhythmic potential as related to the prolongation of the QT interval. Despite amiodarone having long- term side effects, its potential to cause arrhythmias is less than 1%. Amiodarone is loaded IV over a 24-hour period with a conversion to oral dosing afterward (Chung et al., 2020; Frost et al., 2017; Walsh & Caple, 2018).

Evidence-based practice! The Atrial Fibrillation Follow-up Investigation of Rhythm Management (AFFIRM) trial was a landmark trial that changed the management guidelines for AF by examining the management of AF. This trial enrolled 4,060 patients who were randomized to rate control versus rhythm control. The endpoint of the trial was "all-cause mortality." The result of the trial was there was no survival advantage to DC cardioversion and antiarrhythmic drugs. Hence, rate control and anticoagulation were the priority. Yet, follow-up post hoc analysis of the AFFIRM trial revealed more symptomatic heart failure in the rate control group, and patients were less symptomatic in sinus rhythm. Therefore, conversations between the provider and patient/family need to occur on survival benefit, presence of symptoms, heart failure, and cost of medications (Chung et al., 2020).

Anticoagulation

The selection of an anticoagulant agent should be based on shared decision-making with the patient, family, and provider that considers risk factors (risk of thromboembolism and risk of bleeding), cost of the pharmacological agent, and monitoring, tolerability, patient preference, potential for drug interactions, and other clinical characteristics (Heidenreich et al., 2021). The use of anticoagulation is based on the time in AF and the patient's risk stratification of thromboembolism with AF. The most widely utilized risk scoring is the CHA2DS2-VASc scoring. For each clinical condition, age, or sex category, 1 point is given, with 2 points given for age > 75 and prior thromboembolism. The maximum score is 9.

Congestive heart failure: 1.
Hypertension (> 140/90): 1.
Age ≥75 years: 2.
Diabetes mellitus: 1.
Prior Stroke or TIA or thromboembolism: 2.
Vascular disease (MI, Aortic plaque, PVOD): 1
Age 65 to 74: 1.
Sex (female sex): 1.

A CHA2DS2-VASc score ≥2 warrants the use of oral anticoagulants (OAC; Chung et al, 2020; Heidenreich et al, 2021). Options include warfarin (a vitamin K antagonist) or one of the direct oral anticoagulants (DOAC) dabigatran, rivaroxaban, or apixaban. Currently, if the patient is DOAC eligible, this form of anticoagulation is recommended over warfarin (Heidenreich et al., 2021; Frost et al., 2017; Walsh & Caple, 2018).

Evidence-based practice! A cross-sectional, longitudinal study was conducted from 2008 to 2014 on Medicare beneficiaries 65 years and older with AF and atrial flutter (AFL). The conclusion indicated that the utilization of OAC in patients with AF or AFL remained steady over the study period. Beginning in 2010, a gradual decrease in the use of warfarin was paralleled by an increase in use of DOACs (Alalwan et al., 2017).

Evaluation: The last clinical issue is to always evaluate the patient's response to rate control, rhythm control, and anticoagulation. A simple clinical rule of thumb is to titrate medications that are well-tolerated before adding another classification of medication. Using generic versus brand name agents will assist with cost control.

NONPHARMACOLOGICAL MANAGEMENT OF ATRIAL FIBRILLATION

If pharmacologic management does not work to convert and maintain NSR, other modalities are necessary. Cardioversion, also called synchronized electrical cardioversion, can be an elective procedure or prioritized for unstable patients with hypotension, uncontrolled angina, ischemic changes on the 12-lead, and/or decompensated congestive heart failure (CHF). Ideally, cardioversion should be done under conscious sedation with anesthesia on standby for airway management. The risk of thromboembolism is associated with cardioversion in patients with AF =/> 48 hours (Engelke, 2018). Patients who are refractory to both medical management and/or cardioversion can be referred for ablation procedures using radiofrequency energy and cryoablation.

SUMMARY OF KEY POINTS

Cardiac output is affected by the incidence of AF. Rapid heart rates decrease diastolic filling time, decreasing coronary artery perfusion. Stroke volume is affected by the loss of atrial kick, decreasing cardiac output by 20%. Patients with systolic heart failure will have more symptoms second to their EF being less than 40%. Thus, both atrial kick and ventricular ejection are compromised in a patient with systolic heart failure.

The key concept for which risk factors predispose a patient to AF is based on "If you change structure of the heart, you change its function, and thus you change the electrical conduction of the heart." So, AF is seen with patients in whom the structure of the heart has changed.

AF classifications are related to the time in AF. This will then affect further cardiac output, symptoms, selection of rate control/rhythm control, and the need for anticoagulation.

The history and physical appraisal will vary based on the time in AF, as well as the co-morbid conditions that are present.

Diagnostic testing should be performed simple to complex. This is based on determining the differential diagnosis/etiology of AF. Cost is always a factor in diagnostic testing. Referral to a cardiologist is the widely accepted practice.

Complications for AF are related to the compromise to cardiac output, risk of thromboembolism, and quality of life.

Pharmacologic treatment is complex. Cardiology referral is warranted to select the most appropriate classification of agents. The RACE acronym can be used:

R is for **rate** control.

A is for **antiarrhythmic** medications.

C is for anti**coagulation.**

E is for **evaluation**.

Case study

A 67-year-old retired schoolteacher presents with AF. She has been admitted to the coronary care unit with a diagnosis of CHF.

PMH: HTN for the last 10 years, currently on hydrochlorothiazide. No other history is identified.

She complains of a two-week duration of fatigue, dyspnea, and difficulty sleeping without four pillows (orthopnea) at night; in addition, she often awakens with dyspnea (PND). She reports a 10-pound weight gain over the last 2 weeks with infrequent urination.

- Assessment: Irregular, irregularity to her auscultated heart rhythm.
- VS: HR 120, RR 22, and BP 186/78.
- PMI laterally displaced 5th intercostal space, anterior axillary line (AAL), representing left ventricular hypertrophy.
- Bilateral pitting ankle edema (+4), sacral/back edema (+ 2).
- Bibasilar crackles and productive cough.
- Positive jugular vein distention.
- Decreased capillary refill; extremities cool to touch.
- Azotemia (elevated BUN/creatinine) was present on her CMP. TSH, Free T 4, and troponin were all normal.
- CXR reveals cardiomegaly with pulmonary vascular changes and bilateral pleural effusions.
- 12-Lead EKG reveals atrial fibrillation, rapid ventricular rate (RVR), with frequent premature ventricular contractions (PVCs). Biphasic P waves were present. There was no presence of a bundle branch block or ischemia; yet follow-up EKGs were ordered daily.
- 2D echocardiogram reveals left atrial enlargement and EF of 65%, no presence of diastolic dysfunction or wall motion abnormality.

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Self-Assessment Questions, Answers and Rationales

1. What could be the etiology of this patient's acute CHF?
   a. Diastolic dysfunction.
   b. Loss of atrial kick.
   c. Pulmonary vascular congestion.
   d. High blood pressure.

   The correct answer is A.
   Rationale: The loss of atrial kick is an immediate response to AF. She does not have diastolic dysfunction on the echo. The pulmonary vascular congestion is a result of backward flow to the lungs. High blood pressure is a chronic condition that can cause structural heart disease, yet will not cause acute HF symptoms.

2. What is the classification of her AF?
   a. Paroxysmal.
   b. Persistent.
   c. Long-standing persistent.
   d. Permanent.

   The correct answer is B.
   Rationale: Recall the time in AF from the case study. She reported 2 weeks of symptoms. Paroxysmal AF terminates spontaneously or with intervention within 7 days of onset. Persistent AF is continuous AF that is sustained >7 days. Long standing persistent is continuous AF of >12 months duration. Permanent AF is classified when the provider and patient decide to cease further treatments to restore or maintain SR.

3. What diagnostic testing would be an immediate priority?
   a. Coagulation profile.
   b. Holter monitor.
   c. Cardiac catheterization.
   d. EPS.

   The correct answer is A.
   Rationale: The patient will need to be placed on anticoagulation; hence the coagulation profile would be ordered as well as a platelet count. A Holter monitor is used outpatient. Although, a cardiac catheterization and EPS can be ordered, these are not of an immediate concern given that the 2D echo was negative for wall motion abnormalities.

4. What is the patient's CHA2DS2-VASc score?
   a. 1.
   b. 2.
   c. 3.
   d. 4.

   The correct answer is D.
   Rationale: The risk score for thromboembolism is 4 = acute heart failure, HTN, age, and female sex.

5. Which agents would be used for rate control?
   a. Metoprolol.
   b. Digoxin.
   c. Amiodarone.
   d. Sotalol.

   The correct answer is A.
   Rationale: TBeta blockers or CCB are first-line agents. Digoxin can be used for patients in systolic heart failure. Amiodarone and sotalol would be used for conversion.

6. The presence of crackles, lower extremity edema, and pulmonary vascular congestion is most related to which component of cardiac output?
   a. Heart Rate.
   b. Preload.
   c. Afterload.
   d. Contractility.

   The correct answer is B.
   Rationale: Preload is volume. Hence the presence of crackles, edema, and CXR changes are all related to her volume status

7. Left ventricular hypertrophy (LVH) best represents what component of cardiac output?
   a. Preload.
   b. Afterload.
   c. Contractility.
   d. Heart rate.

   The correct answer is B.
   Rationale: Afterload is present with patients with high blood pressure and LVH. Preload would be manifested with signs and symptoms of volume overload. Contractility can be affected, yet she has no indication of systolic heart failure. Long-standing fast heart rates can cause cardiomyopathy.

8. Which diagnostic test would be most helpful if DC cardioversion is needed?
   a. Stress test.
   b. 2D echocardiogram.
   c. (correct) TEE.
   d. EPS.

   The correct answer is D.
   Rationale: TEE is used to evaluate for atrial thrombus (particularly in the left atrial appendage) as well as to guide cardioversion (if thrombus is seen, cardioversion should be delayed).

9. Given that the patient has structural heart disease (HTN and heart failure), which agent would be best used for conversion to NSR?
   a. Flecainide.
   b. Amiodarone.
   c. Diltiazem.
   d. Digoxin.

   The correct answer is B.
   Rationale: Amiodarone would be the best agent for conversion to NSR since it has the least pro- arrhythmic potential. Flecainide is used when no structural heart disease is present. Both diltiazem and digoxin are used for rate control.

10. The patient's history of HTN is best related to what determinant of cardiac output?
    a. Preload.
    b. Afterload.
    c. Contractility.
    d. Heart Rate.

    The correct answer is B.
    Rationale: By definition, afterload is resistance. Hence the resistance, or afterload, that the left ventricle must overcome to eject its volume is based on the pressure against the left ventricle from the aortic blood pressure.

MANAGEMENT OF ATRIAL FIBRILLATION (AF) FOR NURSES

Final Examination Questions

Select the best answer for each question and mark your answers on the Final Examination Answer Sheet found on page 145, or complete your test online at **EliteLearning.com/Book**

71. What effect do diuretics have on cardiac output?
    a. Decrease heart rate.
    b. Decrease afterload.
    c. Decrease preload.
    d. Decrease contractility.

72. The risk factors for AF are numerous. Match the risk factors to the proper "why."
    a. Pericarditis and ischemic heart disease.
    b. Sepsis and metabolic stress.
    c. Structural heart disease and ischemic heart disease.
    d. Holiday heart disease and structural heart disease.

73. A patient in AF for greater than 12 months is considered to have what classification of AF?
    a. Paroxysmal.
    b. Persistent.
    c. Long-standing persistent.
    d. Permanent.

74. Your 73-year-old male patient with a history of DM will be started on anticoagulation for a CHA2DS2-VASc score of __.
    a. 1.
    b. 2.
    c. 3.
    d. 4..

75. Your patient has been in AF for two weeks. Which diagnostic test would provide the best data for an atrial thrombus?
    a. 12-lead EKG.
    b. Echocardiogram.
    c. Transesophageal echocardiography.
    d. Cardiac catheterization.

76. When using a beta blocker or a calcium channel blocker, which effect of the medication is desired to control heart rate?
    a. A negative inotropic effect.
    b. A negative chronotropic effect.
    c. A positive dromotropic effect.
    d. A positive inotropic effect.

77. When a patient goes into AF, which component of hemodynamics can be seen acutely?
    a. Increased preload.
    b. Decreased afterload.
    c. Compromised EF.
    d. Loss of atrial kick.

78. For a patient in heart failure and new onset AF, which laboratory test best reflects fluid overload?
    a. Complete blood count.
    b. B-type natriuretic peptide.
    c. Comprehensive metabolic panel.
    d. Troponin.

79. Which diagnostic test(s) provide information on the ejection fraction (EF)?
    a. Echocardiogram.
    b. Trans- esophageal echocardiogram.
    c. Cardiac catheterization.
    d. All of these.

80. For acute rate control, which agent is best utilized in a patient with a normal EF?
    a. Metoprolol .
    b. Flecainide.
    c. Digoxin.
    d. Amiodarone.

Course Code: ANCCFL01AF

Nursing Assessment, Management and Treatment of Autoimmune Diseases

6 Contact Hours

Release Date: March 3, 2022

Expiration Date: March 2, 2025

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.

Reviewer: Mary C. Ross, PhD, RN, is an experienced nursing educator with substantial clinical experience in multiple areas of nursing including medical/surgical nursing and community health. She is a retired Air Force flight nurse and has extensive experience as an administrator and graduate faculty member, teaching advanced practice nurses.

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

Course objective

Almost 4% of the world's population is affected by one of more than 80 different autoimmune diseases. In the United States (US), as many as 50 million Americans are living with an autoimmune disease, at a cost of $86 billion a year (National Stem Cell Foundation [NSCF], 2021).

This education program provides information on autoimmune diseases with the purpose of adding to the nurse's ability to recognize, assess, and facilitate treatment of such diseases.

Learning objectives

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

- Discuss the incidence and prevalence of common autoimmune diseases.
- Describe the pathophysiology of common autoimmune diseases.
- Initiate appropriate assessment of patients affected by common autoimmune diseases.
- Explain diagnosis and treatment options for common autoimmune diseases.
- Identify nursing interventions important to the care of patients living with common autoimmune 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 either integrated throughout or all at the end of the course. These questions are NOT GRADED. The questions are included to help affirm what you have learned from the course. The correct answer is shown after the question is answered. If the incorrect answer is selected, a Rationale for the correct answer is provided.
- Depending on your state requirements you will then 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). Exam questions link content to the course learning objectives as a method to enhance individualized learning and material retention.
- If requested, provide required personal and payment information.
- Complete the MANDATORY Course Evaluation.
- Print your Certificate of Completion

CE Broker reporting

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Activity director

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

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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

Autoimmune diseases are typically chronic conditions that often present with non-specific symptoms. Therefore, it may be a good deal of time before patients are diagnosed and properly treated. Living with a chronic condition can be burdensome as providers and patients work together to find the optimal treatment and promote the ideal quality of life. As autoimmune conditions can present differently and patients may react in various ways to medication options, treatment plans vary from patient to patient. This education program provides information on autoimmune diseases with the purpose of adding to the nurse's ability to recognize, assess, and facilitate treatment of such diseases.

INCIDENCE AND PREVALENCE

An estimated four percent of the world's population is affected by one of more than 80 different autoimmune diseases. In the United States, autoimmune diseases are the third most common cause of chronic illness. The National Institutes for Health (NIH) reports that autoimmune diseases affect between five and eight percent of the population. The prevalence of autoimmune diseases is increasing. However, the reason for this increase is not yet known (NSCF, 2021).

About 50 million Americans are living with an autoimmune disease at a cost of $86 billion a year. Autoimmune diseases affect women three times as often as men. In fact, the Office of Research on Women's Health at the NIH has named autoimmunity a major women's health issue. These types of diseases are the fourth largest cause of disability in women in the US and they are the eighth leading cause of death for women between the ages of 15 and 64 (NSCF, 2021).

Self-Assessment Question 1

When discussing autoimmune diseases with a female patient, the nurse should explain that:

a. Autoimmune disease affects males and females equally.
b. In the US, autoimmune diseases are the third most common cause of chronic illness.
c. About 25 million Americans are living with an autoimmune disease.
d. Autoimmune diseases are the third largest cause of disability in males.

COMMON AUTOIMMUNE DISEASES

An autoimmune disease develops when the body's immune system mistakes its own healthy tissues as foreign substances and attacks these tissues. Most autoimmune diseases cause inflammation that can affect many parts of the body (National Cancer Institute, n.d.). Autoimmune diseases tend to run in families and affect various races and ethnicities differently (National Cancer Institute, n.d.; NSCF, 2021).

Autoimmunity appears to be increasing in the US according to scientists at the National Institutes of Health (2020) and their collaborators. The most common biomarker of autoimmunity was found to be increasing generally in the US, especially in males, non-Hispanic Whites, adults 50 years of age and older, and adolescents.

The reasons for these increases have not been definitely identified but they suggest a possible increase in future autoimmune diseases.

Some of the most common autoimmune diseases include the following (Messenger, 2021; NSCF, 2021):

- Alopecia Areata.
- Celiac Disease.
- Crohn's Disease.
- Diabetes Type 1.
- Multiple Sclerosis (MS).
- Rheumatoid Arthritis (RA).
- Lupus.
- Scleroderma.
- Psoriasis.
- Ulcerative colitis.
- Vitiligo.

Alopecia areata

Alopecia areata is a chronic disorder that affects anagen hair follicles and causes non-scarring hair loss. The disorder occurs throughout the world. Its estimated prevalence is about one in 1,000 people, with a lifetime risk of approximately two percent. The disorder occurs at similar rates in males and females and affects both children and adults. The mean age for diagnosis of alopecia areata is 32 years in males and 36 years in females (Messenger, 2021).

Pathophysiology

Alopecia areata is an autoimmune disease. Cells of the immune system surround and "attack" hair follicles, which causes the attached hair to fall out. The greater the number of hair follicles attacked by the immune system, the greater the loss of hair. Although hair loss occurs, hair follicles are rarely destroyed (American Academy of Dermatology Association (AAD), 2021a).

Anyone can develop alopecia areata. There are, however, some people who are at greater risk for its development (AAD, 2021a):

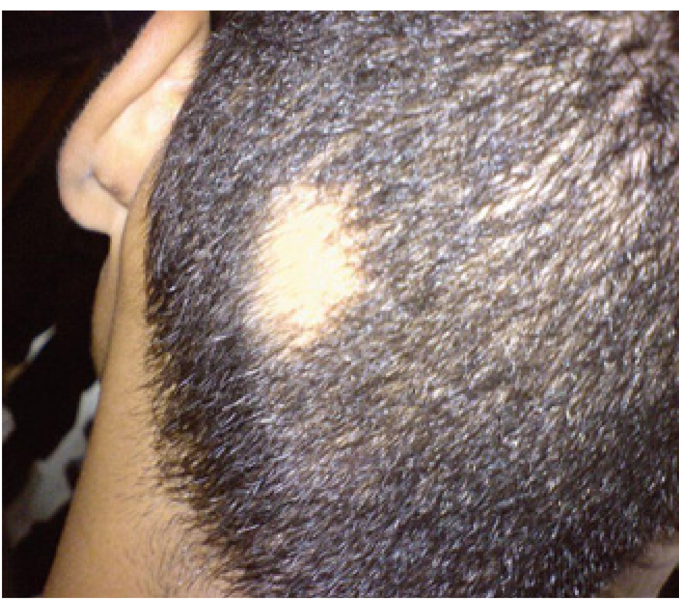
- An estimated 10% to 20% of people with alopecia areata have a family member with the disorder. The actual percentage may be much higher since many people try to hide hair loss.
- People who have asthma, hay fever, atopic dermatitis, thyroid disease, vitiligo, or Down syndrome are at higher risk for developing the disease.
- People with cancer who are being treated with various chemotherapeutic drugs are at risk for hair loss. Hair generally regrows after treatment is completed.

Assessment

Alopecia areata most typically causes discrete, smooth patches of hair loss on the scalp (see Figure 1). Hair loss may also occur in other areas of the body, such as eyebrows, eyelashes, beard, and extremities. Severe disease may lead to the loss of all scalp hair (alopecia totalis) or of all body hair (alopecia universalis; AAD, 2021a).

In addition to the physical findings, a complete health history needs to be obtained. Emphasis is on current state of health, medications being taken, and any risk factors that are in evidence. A mental health assessment is also an important part of any assessment process (AAD, 2021a).

Figure 1. Alopecia areata



Note. Andrzej. (2011). Alopecia areata.JPG https://commons.wikimedia.org/wiki/File:Allopecia_areata.JPG

Diagnosis and treatment

Diagnosis is based on patterns of hair loss, history, and physical findings. It is important to rule out other autoimmune disorders (AAD, 2021b).

Treatment in Persons Less than 10 Years of Age. Treatment depends on age, the amount of hair loss, and the location of the hair loss. In children 10 years of age and younger, treatment may be initiated to help hair regrowth. Pharmacological interventions include the following (AAD, 2021b):

- **Corticosteroids**: Prescription-strength corticosteroids may be applied to sites of hair loss. Corticosteroids may be applied once or twice a day. For children, corticosteroids alone may be effective in promoting hair growth.
- **Minoxidil**: Minoxidil (Rogaine) can help to maintain regrowth after corticosteroids are discontinued.

Treatment in Persons over 10 Years of Age. If there are only a few patches of alopecia areata, one or more of the following treatments may be initiated (AAD, 2021b):

- **Injection of corticosteroids**: Corticosteroids are injected into bald areas every 4 to 8 weeks.
- **Application of minoxidil (Rogaine)**: The medication is applied to bald spots once or twice a day as prescribed. It is useful when bald spots are over the scalp, beard area, and eyebrows.
- **Application of anthralin**: This medication is applied to bald spots, allowing it stay on the skin for as long as prescribed, and then it is washed off. Skin irritation is expected. Using anthralin in conjunction with minoxidil is prescribed for most effective results.

If eyelashes are affected, false eyelashes or wearing glasses helps to make hair loss less apparent. The use of bimatoprost or similar medications has been approved, in addition to glaucoma treatment, to help eyelashes grow longer (AAD, 2021b).

For eyebrow loss, "stick-on" eyebrows or semi-permanent tattoos may be used. A dermatologist may also inject intralesional corticosteroids in conjunction with the application of minoxidil (AAD, 2021b).

If hair loss is rapid and extensive, the following interventions may be used (AAD, 2021b):

- **Topical immunotherapy**: This intervention is designed to alter the immune system so that it stops attacking hair follicles. Treatment is typically implemented on a weekly basis.
- **Methotrexate**: This medication may be prescribed when other treatments fail to be effective.

Nursing consideration: Methotrexate is also used to treat leukemia and various malignancies including cancers of the breast, skin, head, neck, lung, or uterus. It is also used to treat severe psoriasis and rheumatoid arthritis in adults. Methotrexate can cause serious, even fatal, side effects (Entringer, 2020). Such side effects include bone marrow, liver, lung, and kidney toxicities, soft-tissue necrosis, osteonecrosis, severe bone marrow suppression, aplastic anemia, gastrointestinal toxicity, hemorrhagic enteritis, and intestinal perforation (Comerford & Durkin, 2021).

- **Corticosteroids**: Taking corticosteroids for about 6 weeks may help hair growth in the presence of widespread alopecia areata.
- **Janus kinase (JAK) inhibitors**: These types of medications may treat extensive hair loss. Examples include tofacitinib, ruxolitinib, and baricitinib.
- **Wigs, hairpieces, or scalp prosthesis**: Use of these items may cover up hair loss.

Nursing Interventions

Nurses are typically involved in patient/family education. They take a lead role in education regarding accurate medication administration, adherence to treatment regimen, and psychosocial support. In the case of patients who are dealing with alopecia areata, body image changes may have

psychological consequences, therefore, mental health is an aspect of care that nurses must assess.

Although the symptoms of alopecia areata typically do not cause physical pain, psychological pain may become a serious problem (National Alopecia Areata Foundation, n.d.).

Evidence-based practice! An analysis of U S hospitalizations found that alopecia areata patients are at risk for anxiety disorders, attention-deficit hyperactivity disorder, dementia, mood disorders, personality disorders, and suicide or intentionally self-inflicted injury. It was unclear if psychological stress might cause or exacerbate alopecia areata, or whether alopecia areata can lead to or worsen mental health disorders (Singam et al., 2018).

A diagnosis of alopecia areata in children can be just as, or even more, upsetting for parents. Parents of these children have reported that they feel a sense of "guilt" as though they had somehow contributed to the development of the disease or cannot stop its progression (National Alopecia Areata Foundation, n.d.).

Parents (and other caregivers) are urged to avoid being overly protective or permissive with their children. They should identify a support network to help them manage stress. Parents are also encouraged to speak directly to their children about their alopecia areata and urge the children to talk about their feelings about living with alopecia areata (National Alopecia Areata Foundation, n.d.).

Children with alopecia areata are at risk for emotional distress, anxiety, depression, and sadness. Children may not be able to describe their feelings, so it is important to teach parents and other family members/caregivers how to recognize depression and anxiety. Symptoms of depression in children include the following (National Alopecia Areata Foundation, n.d.):

- Sadness and/or irritability.
- Not wanting to participate in "fun" activities that were enjoyed in the past.
- Changes in eating patterns.
- Changes in sleep patterns.
- Changes in energy patterns.
- Having a hard time paying attention.
- Feelings of worthlessness, uselessness, and/or guilt.
- Exhibiting self-destructive behavior.

Symptoms of anxiety in children include the following (National Alopecia Areata Foundation, n.d.):

- Excessive fearfulness or worry.
- Irrational anger.
- Trouble sleeping.
- Physical symptoms including fatigue, headaches, and stomach aches.

Children are also at risk for bullying. Examples of bullying behaviors that affect children with alopecia areata include the following (National Alopecia Areata Foundation, n.d.):

- Pulling head coverings from the child's head.
- Verbalizing insults about the child's appearance.
- Telling others about the child's alopecia and making deliberate attempts to humiliate and embarrass the child.

Evidence-based practice! Results from a study of 80,000 students showed that 25% of participants reported having been bullied. Results also showed a significant disconnect between teachers' perceptions and what their students say is happening in their schools (Stringer, 2016).

To combat bullying, the National Alopecia Areata Foundation offers the following suggestions for parents and other caregivers as they work to help their children who are being bullied (National Alopecia Areata Foundation, n.d.):

- Help children to understand and identify bullying behaviors.
- Encourage open communication, check in with the children frequently, and listen/observe closely to what children are saying and doing.
- Encourage children to participate in enjoyable activities to foster confidence.
- Model treating other with kindness and respect.
- Speak to school officials and leaders of extra-curricular activities about bullying and how to stop it.
- Provide information about how to deal with bullying such as leaving the bullying situation if possible, telling the bully (calmly) to stop the bullying, controlling emotions (avoiding showing fear or anger, which may increase the bullying), and do not try to bully the person(s) who is doing the bullying (this only perpetuates the cycle of bullying).

When working with patients who are dealing with alopecia areata nurses have a responsibility to work with patients and families as they attempt to navigate the mental health issues that often accompany the disease. They should be prepared to discuss these issues and intervene effectively.

Case Study: Mr. Nathan Lacy

Nathan has recently been diagnosed with alopecia areata. He has a few patches of alopecia over his scalp and is distressed over his hair loss. There is no hair loss of eyebrows or other facial hair. At 28 years of age, Nathan says, "I never thought I'd be going bald at my age!" The nurse practitioner, who is Nathan's primary healthcare provider, assures him that there are treatment options for alopecia areata.

Question:

What treatment options are available to Nathan?

Discussion:

There are several treatment options for Nathan. Treatment varies according to age and the amount of hair loss. Nathan is over 10 years of age and has only a few patches of alopecia. Corticosteroids may be injected directly into the bald areas every 4 to 8 weeks. Topical medications that are available are minoxidil (Rogaine) and/or anthralin. Minoxidil is applied to the bald spots once or twice a day.

Anthralin is applied to bald spots and left on the skin for a prescribed amount of time, after which it is washed off. Patients should anticipate skin irritation when using anthralin. Treatment is most effective when these drugs are used together.

Nathan also needs to receive emotional support. He has already told his nurse practitioner that he is distressed about his hair loss. Research shows that people who have alopecia areata are at risk for a variety of mental health issues including anxiety disorders, mood disorders, and personality disorders. A mental health assessment is very important as is ongoing observation and professional mental health consultation as needed.

Celiac disease

Celiac disease, also referred to as celiac sprue or gluten-sensitivity enteropathy, is an immune reaction to eating gluten, which is a protein found in wheat, barley, and rye (Mayo Clinic, 2020a). An estimated one in 100 people throughout the world are affected by celiac disease. Two and one-half million Americans are undiagnosed and at risk for long-term health-related complications (Celiac Disease Foundation, 2018; Celiac Disease Foundation, 2021).

A recent meta-analysis and review of studies from throughout the world showed that the world-wide prevalence of celiac disease is an estimated 1.4% based on blood tests, and 0.7% based on the results of biopsies. The prevalence was higher in females than males and was significantly higher in children compared to adults (Celiac Disease Foundation, 2018).

Evidence-based practice! Research shows that celiac disease typically becomes evident between the ages of 6 and 18 months after gluten-containing foods are introduced into the diet (Meadows-Oliver, 2019). Therefore, parents should be taught to carefully observe their children for symptoms of the disease during this period of time.

Pathophysiology

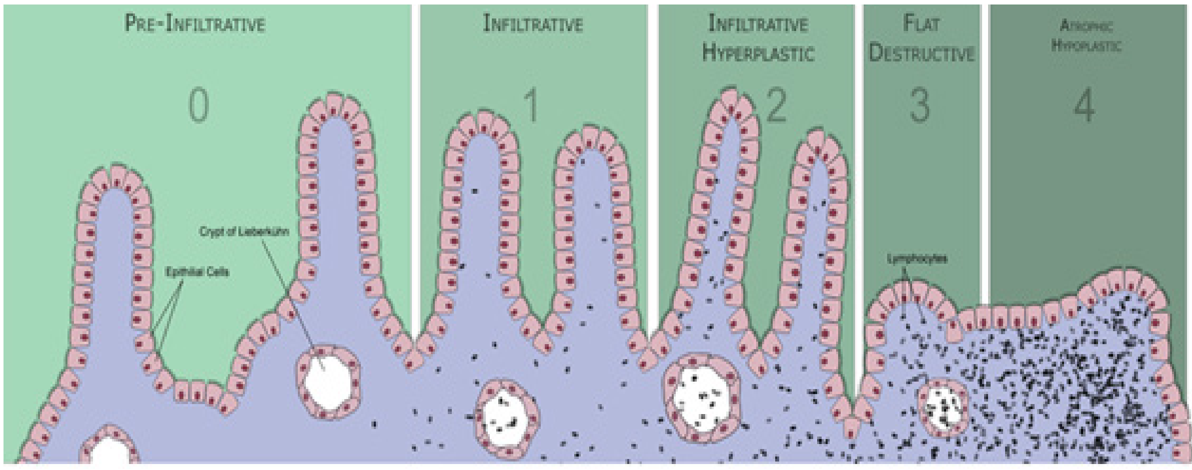
When people with celiac disease ingest gluten, the immune system responds and attacks the cells of the small intestine. Eventually the villi of the small intestine are damaged. Villi are the projections that line the small intestine and facilitate the absorption of protein (Celiac Disease Foundation, n.d.).

Nursing consideration: Celiac disease cannot be prevented, but adherence to a strict gluten-free diet may stop and reverse small intestine damage (My Health Alberta, 2021).

Figure 2 illustrates the various stages of celiac disease. These stages can be explained as follows (Celiac Disease Foundation, n.d.; Goebel, 2019):

- **Stage 1**: Pre-infiltrate. There is an increased percentage of intraepithelial lymphocytes (>30%).
- **Stage 2**: Infiltrative hyperplastic. This stage is characterized by the presence of inflammatory cells and crypt cell (which act as immunoglobulin receptors) proliferation while preserving the architecture of the villa.
- **Stage 3**: Flat destructive. Stage 3 is characterized by villous atrophy progressing from mild to total atrophy.
- **Stage 4**: Atrophic hypoplastic. Stage 4 is characterized by total mucosal hypoplasia.

Figure 2. Upper Jejunal Mucosal Immunopathology



Note. From Wikipedia Commons, 2020.

Nursing consideration: Dermatitis herpetiformis (DH) is an itchy, bumpy rash commonly found in people with celiac disease. DH causes blisters that resemble herpes, but they are associated with celiac disease. The antibody produced by the intestines in the presence of celiac disease, called IgA, can enter the bloodstream and accumulate in blood vessels under the skin. This causes the DH rash (Nazario, 2020).

Risk Factors. There several risk factors associated with celiac disease. These include the following (Mayo Clinic, 2020a):

- Having a family member with celiac disease or dermatitis herpetiformis.
- Having type 1 diabetes.
- Having Down syndrome or Turner syndrome.
- Having autoimmune thyroid disease.
- Having microscopic colitis.
- Having Addison's disease.

Complications. Celiac disease can lead to several complications, especially if it is untreated. These complications include the following (Mayo Clinic, 2020a):

- **Malnutrition**: Malnutrition occurs if the small intestine is unable to absorb adequate amounts of necessary nutrients. In children, untreated malnutrition can slow growth and shorten stature.
- **Weakening of bones**: Failure to absorb calcium and vitamin D may lead to osteomalacia (softening of the bone) in children. It may cause loss of bone density, referred to as osteopenia or osteoporosis.
- **Infertility and miscarriage**: Inability to absorb calcium and vitamin D may cause fertility issues and pregnancy complications.
- **Lactose intolerance**: The small intestine damage may cause abdominal pain and diarrhea after consuming dairy products that contain lactose.
- **Malignancy**: If persons affected by celiac disease fail to adhere to a gluten-free diet, they are at higher risk for the development of cancers such as intestinal lymphoma and small intestine malignancy.
- **Nervous system issues**: Celiac disease is associated with issues such as seizures or peripheral neuropathy.

Types of Celiac Disease that Fail to Respond to Treatment. There are two forms of celiac disease that do not respond to traditional treatment.

Nonresponsive Celiac Disease. Some patients do not respond to what they believe is a gluten-free diet. This problem is typically because patients continue to consume food and drink that contain gluten. A dietary consult is needed to help these types of patients completely eliminate gluten form their diets. People with nonresponsive celiac disease might have bacterial overgrowth in the small intestine, pancreatic insufficiency, irritable bowel syndrome (IBS), microscopic colitis, or trouble digesting sugars such as lactose, sucrose, and/or fructose (Mayo Clinic, 2020a).

Refractory Celiac Disease. In some rare cases, patients fail to respond to treatment even when adhering to a strict gluten-free diet. This failure is referred to as refractory disease. Those persons who still have signs and symptoms for 6 months to 1 year after following a gluten-free diet require further evaluation (Mayo Clinic, 2020a). The exact cause of this form of the disease is not yet known. It is believed that the body's immune system is involved, particularly T lymphocytes and intraepithelial lymphocytes (IEL), cytokines, and antigens (National Organization for Rare Disorders, 2021).

Assessment

A complete physical and mental health assessment is conducted. Symptoms related to the disease are an integral part of the patient assessment. However, signs and symptoms of celiac disease can vary significantly, and signs and symptoms may differ in children and adults (Mayo Clinic, 2020a).

Upon assessment, nurses should monitor for the presence of the following symptoms in adults (Mayo Clinic, 2020a):

- Abdominal pain.
- Bloating and gas.
- Constipation.
- Diarrhea.
- Fatigue.
- Nausea and vomiting.
- Weight loss.

According to the Mayo Clinic (2020a), more than 50% of adults with celiac disease have signs and symptoms that are unrelated to the digestive system. These types of signs and symptoms include the following:

- Anemia.
- Dermatitis herpetiformis.
- Fatigue.
- Headaches.
- Hyposplenism.
- Joint pain.
- Mouth ulcers.
- Symptoms related to the nervous system such as numbness and tingling of the extremities, impaired cognition, and problems with balance.
- Osteoporosis.

Children with celiac disease are more likely than adults to experience digestive problems such as the following (Mayo Clinic, 2020a):

- Abdominal distention.
- Chronic diarrhea.
- Flatulence.
- Nausea and vomiting.
- Pale, foul-smelling stools.

Nursing consideration: In children, celiac disease leads to an inability to absorb adequate amounts of nutrients. This may lead to failure to thrive in infants, weight loss, anemia, delayed puberty, short stature, and tooth enamel damage (Mayo Clinic, 2020a). Nurses must be aware of the potential for these types of complications when working with children who have celiac disease.

Long-Term Health Effects

People with celiac disease have a 2X greater risk of developing coronary artery disease (CAD) and a 4X greater risk of developing small bowel malignancies. Untreated celiac disease can lead to other autoimmune disorders such as Type 1 diabetes and multiple sclerosis (MS) as well as dermatitis herpetiformis, anemia, osteoporosis, infertility, miscarriage, and neurologic conditions such as epilepsy and migraines (Celiac Disease Foundation, 2021).

Diagnosis and Treatment

Diagnosis. In addition to the presence of relevant signs and symptoms, results from some diagnostic tests help to confirm the diagnosis. These include the following (Mayo Clinic, 2020a; Meadows-Oliver, 2019):

- Histologic changes observed on small-bowel biopsy specimens, which confirms diagnosis.
- Poor glucose absorption as evidenced by a glucose tolerance test.
- Decreases in albumin, calcium, sodium, potassium, cholesterol, and phospholipids.
- Possible decreases in hemoglobin and hematocrit levels, white blood cell (WBC) counts, and platelet counts.
- Immunologic assay screen is positive for celiac disease.
- Serology testing looks for the presence of specific antibodies that indicate an immune reaction to gluten.
- Genetic testing for human leukocyte antigens (HLA-DQ2 and HLA_DQ8) can be used to rule out celiac disease.
- High fat content in stool specimens.

Nursing consideration: It is important that patients be tested for celiac disease BEFORE trying a gluten-free diet. If gluten is eliminated from the diet before testing, the results may appear falsely normal (Mayo Clinic, 2020a).

If any of the preceding tests indicate the presence of celiac disease, it is most likely that the healthcare provider will order one of the following tests (Mayo Clinic, 2020a):

- **Endoscopy**: Conducted to enable a view of the small intestine and take a biopsy for analysis.
- **Capsule endoscopy**: The patient swallows a capsule that contains a minute wireless camera that takes pictures of the small intestine. As the capsule moves through the digestive tract thousands of pictures are taken. The pictures are transmitted to a recorder.

Treatment. The foundation of treatment is a strict, lifelong adherence to a gluten-free diet (Mayo Clinic, 2020a). Patients and families must be educated about what foods, besides wheat, contain gluten. These include the following (Mayo Clinic, 2020a; Meadows-Oliver, 2019):

- Barley.
- Bulgur.
- Durum.
- Farina.
- Graham flour.
- Malt.
- Rye.
- Semolina.
- Spelt (a form of wheat).
- Triticale.

Nursing consideration: A referral to a nutritionist is important. The nutritionist can help patients and families make informed choices and plan a suitable diet (Meadows-Oliver, 2019). A gluten-free diet helps to heal the villous atrophy and promotes symptom resolution. Following a gluten-free diet helps to prevent complications in the future, including malignancy development (Celiac Disease Foundation, 2021).

The recommended diet is a high-protein, low-fat, high calorie diet that includes corn and rice products, soy and potato flour, and fresh fruits. Additionally, infants may have breast milk or soy-based formula (Celiac Disease Foundation, 2021).

If the patient is anemic or severe nutritional deficiencies are present, healthcare providers might recommend that supplements be taken, including the following (Mayo Clinic, 2020a):

- Copper.
- Folate.
- Iron.
- Vitamin B-12.
- Vitamin D.
- Vitamin K.
- Zinc.

Nursing consideration: Supplements and vitamins are typically taken in pill form. However, if the digestive tract is not able to absorb prescribed supplements, they may need to be administered via injection (Mayo Clinic, 2020a).

If the small intestine has sustained severe damage, steroids may be prescribed to control inflammation. Steroids can help to reduce severe signs and symptoms. If the patient has refractory celiac disease the small intestine will not heal. Patients with refractory celiac disease should be evaluated in a specialized center. This disease can be very serious. To date, there is no proven effective treatment (Mayo, 2020a).

There are a significant number of foods that are allowed on a gluten-free diet. These include the following (Mayo Clinic, 2020a):

- Eggs.
- Fresh meats, fish, and poultry that have not been breaded, batter-coated, or marinated.

- Fruits.
- Lentils.
- Most dairy products, unless some of the products exacerbate symptoms.
- Nuts.
- Potatoes.
- Vegetables.
- Wine, distilled liquors, ciders, and spirits.

The grains and starches allowed on a gluten-free diet include the following (Mayo Clinic, 2020a):

- Amaranth.
- Buckwheat.
- Corn.
- Cornmeal.
- Gluten-free flours (rice, soy, corn, potato, bean).
- Pure corn tortillas.
- Quinoa.
- Rice.
- Tapioca.
- Wild rice.

Self-Assessment Question 2

Which of the following actions is acceptable for a person with celiac disease?

a. Incorporate farina into the diet.
b. Eliminate corn from the diet.
c. Reduce the amount of zinc ingested in the diet.
d. Include buckwheat in the diet

Nursing Interventions

Emotional support is critical for patients and their loved ones. Nurses, via education and empathy, must help patients and families to deal with a chronic disease that requires life-style changes for life. Ensuring a consult with a nutritionist is also critical. The complexities of diet for patients with celiac disease necessitate professional consultation and ongoing monitoring (Meadows-Oliver, 2019).

Patients and families should be educated to avoid packaged foods unless they are clearly labeled as gluten-free or have no gluten-containing ingredients such as emulsifiers. Reading labels is an essential skill when purchasing food. In addition to cereals, pastas, and baked goods, other packaged foods that can contain gluten include the following (Mayo Clinic, 2020a):

- Beers, lagers, ales, and malt vinegars.
- Candies.
- Gravies.
- Imitation meats and seafood.
- Processed luncheon meats.
- Rice mixes.
- Salad dressings and sauces, including soy sauce.
- Seasoned snack foods (e.g., potato chips).
- Seitan (a food made from gluten).
- Self-basting poultry.
- Soups.

Nursing consideration: Although pure oats are not harmful for the majority of patients with celiac disease, oats may be contaminated by wheat during growing and processing. Patients and families should consult with their healthcare providers regarding eating small amounts of pure oat products (Mayo Clinic, 2020a).

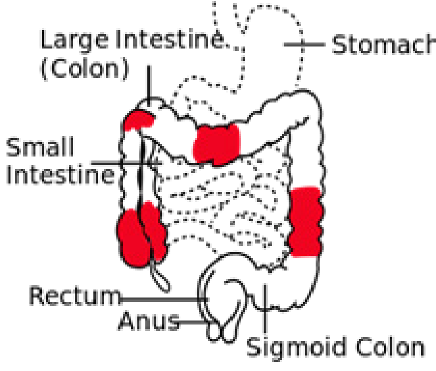
Patients and families may benefit from participating in a support group. Support resources include the following:

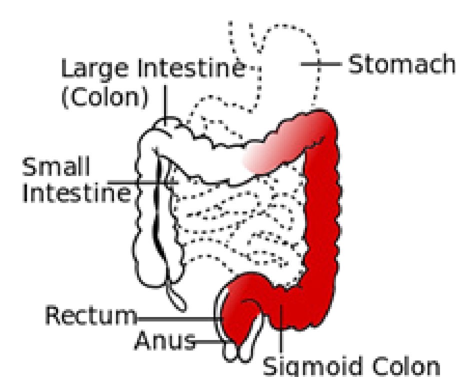
- National Celiac Association: 1-888-4-CELIAC https://nationalceliac.org/celiac-disease-support-groups/
- Gluten Intolerance Group: 1-253-833-6655 https://gluten.org/
- Hospitals, social services organizations, and healthcare providers can make recommendations regarding local support groups.

Crohn's disease

Crohn's disease is a chronic, idiopathic inflammatory bowel disease and is categorized under the spectrum of chronic idiopathic inflammatory bowel disease (IBD; Feuerstein & Cheifetz, 2017). The other most common type IBD is colitis ulcerose, which will be discussed later in this education program (Mayo Clinic, 2021d). The differences between Crohn's disease and colitis ulcerosa are shown in Figure 3.

Figure 3. Crohn's Disease vs Colitis Ulcerosa





Note. The red areas indicate the portions of the colon that are typically inflamed.
(Wikipedia Commons, 2021)v

Crohn's disease typically affects the distal ileum and colon but may occur in any part of the gastrointestinal (GI) tract. Effects of Crohn's disease can extend through all layers of the intestinal wall and may also involve regional lymph nodes and the mesentery (Gersch et al., 2017; Merck Manual, 2020a).

Evidence-based practice! Research shows that Crohn's disease peaks at two specific age ranges: between 15 and 30 and again at 60 to 70 years of age. Women are more often affected than men during the age range of 60-70 (Gersch et al., 2017). These age ranges should be considered when evaluating patients. The disease is most often diagnosed in adolescents and adults between the ages of 20 and 30 (Crohn's & Colitis Foundation, 2021b).

Pathophysiology and Assessment

Crohn's disease starts with crypt (glands of the intestinal lining) inflammation and abscesses, which evolve into tiny focal aphthoid ulcers (mucosal lesions). These lesions may advance into deep longitudinal and transverse ulcers accompanied by mucosal edema, which creates the characteristic cobblestoned appearance of the bowel (Merck Manual, 2020a).

Bowel thickening causes stenosis of the bowel, which can occur in any part of the intestine and cause varying degrees of intestinal obstruction (Rebar et al., 2019).

Abscesses are common. Fistulas frequently penetrate adjoining structures and may even extend into the skin of the anterior abdomen or flanks (Merck Manual, 2020a).

Evidence-based practice! Research shows that perianal fistulas and abscesses occur in 25% to 33% of cases of Crohn's disease. These complications can be the most problematic aspects of the disease (Merck Manual, 2020a).

- As the inflammation of Crohn's disease progresses, evident pathophysiology includes the following (Rebar et al., 2019):
- As lymph nodes enlarge the lymph flow in the submucosa is impeded.
- Lymph flow obstruction leads to edema, ulceration of the mucosa, fissures, abscesses, and, possibly, granulomas.
- Peyer's patches form. These patches are oval, elevated, closely packed lymph follicles.
- Fibrosis develops, causing further thickening of the walls of the bowel, stenosis, and/or narrowing of the lumen.
- Inflamed loops of the bowel adhere to not only other diseased portions of the bowel, but to healthy portions as well.
- The diseased parts of the bowel continue to thicken and narrow.

Complications. Anal fistula is the most common complication. Fistulas may develop to the bladder, vagina, or even in the area of an old scar. Additional complications include the following (Rebar et al., 2019):

- Intestinal obstruction.
- Nutrient deficiencies.
- Fluid and electrolyte imbalances.
- Peritonitis.

There is also a long-term risk of colorectal cancer (Merck Manual, 2020a). Patients and families should be taught to monitor for signs and symptoms of colorectal cancer and adhere to screening guidelines.

Risk factors. Crohn's disease appears to be initiated by alterations in intestinal microbes or alterations in the mucosa of the intestine. Gastrointestinal (GI) infections, nonsteroidal anti-inflammatory drugs, and antibiotics have been implicated in the development of inflammatory bowel disease (IBD). However, none of these types of associations have been substantiated with large epidemiological studies (Feuerstein & Cheifetz, 2017).

Cigarette smoking, the best-studied environmental risk factor, doubles the risk of developing Crohn's disease. It is important to note that the risk is increased in both current and former smokers (Feuerstein & Cheifetz, 2017).

Nursing consideration: Family history may be linked to an increased risk for the development of Crohn's disease. However, only 10% to 25% of patients with IBD have a first-degree relative with the disease. More than 200 genes have been associated with IBD development, making genetic specificity difficult (Feuerstein & Cheigetz, 2017).

Diagnosis and Treatment.

Diagnosis. Various conditions can mimic Crohn's disease. Examples of conditions that present with similar signs and symptoms include appendicitis, Behcet disease, and ulcerative colitis (Feuerstein & Cheifetz, 2017).

The diagnosis of Crohn's disease is made based on signs and symptoms and some diagnostic tests. It is important to know which part of the gastrointestinal tract is affected by the disease. Signs and symptoms may vary depending on what type of Crohn's disease a patient has (Crohn's & Colitis Foundation, 2021a)

Types of Crohn's disease based on affected part of the gastrointestinal tract are as follows (Crohn's & Colitis Foundation, 2021a):

- **Ileocolitis**: Ileocolitis is the most common type of Crohn's disease. It affects the terminal ileum and the colon. Symptoms associated with ileocolitis include cramps, diarrhea, and pain in the lower right abdominal quadrant.
- **Ileitis**: Ileitis affects only the ileum. Symptoms are the same as ileocolitis. If the disease is severe, complications may develop including fistulas or inflammatory abscesses in the right lower abdominal quadrant.
- **Gastroduodenal Crohn's Disease**: Gastroduodenal Crohn's disease affects the stomach and the duodenum. Symptoms may include nausea, vomiting, loss of appetite, and weight loss.
- **Jejunoileitis**: Characterized by patchy areas of inflammation of the jejunum, jejunoileitis may cause mild to intense abdominal pain and cramps after meals, diarrhea, and fistulas that may form in severe cases or after lengthy periods of inflammation.
- **Crohn's (Granulomatous) Colitis**: Crohn's colitis affects only the colon. Its symptoms may include diarrhea, rectal bleeding, and disease around the anus (e.g., abscess, fistulas, and ulcers). Skin lesions and joint pain are more common in this type of Crohn's disease than others.

Both types of IBD (Crohn's disease and ulcerative colitis) have similar symptoms but are not the same disease and affect different areas of the gastrointestinal tract. Differences include the following (Crohn's & Colitis Foundation, 2021a):

- **Crohn's Disease**: May affect any part of the gastrointestinal tract from mouth to anus. Can affect the entire thickness of the bowel wall.
- **Ulcerative Colitis**: Only the colon and rectum are affected. The disease affects the inner-most lining of the colon.

Nurses must be aware of these differences, which are important as part of the diagnostic and treatment process.

Self-Assessment Question 3

Which type of Crohn's disease affects the terminal ileum and the colon?

a. Ileitis.
b. Ileocolitis.
c. Jejunoileitis.
d. Gastrointestinal.

Various diagnostic test results support a diagnosis of Crohn's disease. These include the following (Rebar et al., 2019):

- **Fecal occult test**: Minute amounts of blood in the stool.
- **X-rays of the small intestine**: Irregular mucosa, ulceration, and stiffening.
- **Barium enema**: The string sign, which occurs when segments of stricture are separated by normal bowel. Fissures, ulceration, and narrowing of the bowel may be observed.
- **Sigmoidoscopy and colonoscopy**: Patchy areas of inflammation are observed. (This sign helps to rule out ulcerative colitis). The surface of the mucosa has a cobblestone appearance. Ulcers may be seen if the colon is affected.

Nursing consideration: Colonoscopy has been found to be more accurate than barium enema in assessing the degree of inflammation present (Rebar et al., 2017). Since repeated testing can be quite stressful, patients need to understand that a combination of these test are typically used since no one test is definitive.

Treatment. Lab tests should be conducted every 1 to 2 years to detect vitamin D and B12 deficiencies. Additional lab tests are conducted to screen for anemia, hypoalbuminemia, additional vitamin deficiencies, and electrolyte abnormalities. Any nutritional deficiencies may be treated with supplements and, possibly, dietary alterations (Merck Manual, 2020a).

Nursing consideration: In general, treatment requires drug therapy, lifestyle changes, and, possibly, surgery. When acute attacks occur, it is imperative that fluid and electrolyte balance is maintained. If patients are debilitated, parenteral nutrition is prescribed to ensure adequate caloric and nutrition intake while allowing the bowel to rest (Merck Manual, 2020a; Rebar et al., 2019).

General Treatment Interventions. For relief of cramps and diarrhea, oral loperamide, 2 to 4 mg or antispasmodic drugs can be taken up to four times a day, preferably before meals. These drugs are typically safe for patients. However, if the patient is suffering from severe, acute Crohn colitis (that may progress to toxic colitis and bowel obstruction), antidiarrheal and antispasmodic drugs are not used (Comerford & Durkin, 2021; Merck Manual, 2020).

Hydrophillic mucilloids such as methylcellulose are sometimes given to help prevent anal irritation by increasing the firmness of the stool. Patients should avoid dietary roughage in cases of structuring or active colonic inflammation (Merck Manual, 2020a).

Mild to Moderate Disease. Patients with mild to moderate disease are ambulatory, tolerate oral intake, and are without signs of toxicity, tenderness, masses, or obstruction. In mild to moderate disease cases, first-line treatment is 5-ASA (mesalamine). However, benefits from 5-ASA drugs appear to be limited. Several experts do not recommend using them in small-bowel Crohn disease (Comerford & Durkin, 2021; Merck Manual, 2020a). Antidiarrheals are used to control diarrhea, but not in patients who have significant bowel obstruction (Rebar et al., 2019).

Some experts prescribe antibiotics as first-line treatment, while others reserve antibiotics for patients not responding to 4 weeks of 5-ASA (Merck Manual, 2020a). The use of antibiotics is not definitive. Results from a 2019 study suggest that benefits provided by antibiotics in active Crohn's disease are probably very modest. The effects of antibiotics on preventing Crohn's disease relapse are uncertain. No definitive conclusions were drawn, and more research is needed to identify the risks and benefits of antibiotic therapy in Crohn's disease (Cochrane, 2019).

Moderate to Severe Disease. Patients are considered to have moderate to severe disease if they are without fistulas or abscesses but are in significant pain and have tenderness, fever, and/or vomiting, or patients who have been non-responsive to mild disease treatment interventions (Merck Manual, 2020a).

Administration of corticosteroids, either oral or parenteral, frequently provides swift relief of symptoms. Corticosteroids such as prednisone or prednisolone reduce diarrhea, pain, and bleeding by decreasing inflammation. If patients do not respond to corticosteroids, they must not be maintained on these types of drugs (Comerford & Durkin, 2021; Merck Manual, 2020a). Aminosalicylates such as sulfasalazine (Azulfidine) are also used to decrease inflammation (Rebar et al., 2019).

Immunosuppressants such as azathioprine (Azasan) and mercaptopurine (Purinethol) are prescribed to suppress the body's response to antigens (Rebar et al., 2019). These types of drugs have a positive impact for most patients. If immunosuppressant therapy does not work in patients who are not candidates for surgery, biologic agents such as vedolizumab may be used (Merck Manual, 2020a). If patients fail to respond to conventional treatment, an antitumor necrosis factor agent (infliximab) may be given (Rebar et al., 2019).

Bowel obstruction is managed with nasogastric suction and intravenous (IV) fluids. Obstruction in uncomplicated Crohn disease should resolve within a few days, However, failure to respond suggests a complication or other etiologies and immediate surgery is required (Merck Manual, 2020a).

Fulminant Disease, Abscesses, Fistulas. Fistulas are typically treated with metronidazole and ciprofloxacin. If patients fail to respond within 3 to 4 weeks they may receive an immunomodulator (e.g., azathioprine). Fistulas often relapse (Merck Manual, 2020a).

Patients who present with toxicity, high fever, persistent vomiting, or a tender or palpable mass must be hospitalized for administration of IV fluids and antibiotics. Abscesses must be drained either percutaneously or surgically (Merck Manual, 2020a).

Nursing consideration: Surgery is necessary in cases of bowel perforation, massive hemorrhage, fistulas unresponsive to medication, or acute intestinal obstruction. A colectomy with ileostomy may be performed in patients who have extensive disease of the colon and rectum (Rebar et al., 2019).

Lifestyle Changes. Lifestyle changes are an integral part of the treatment plan. Patients must try to reduce the stressors in their lives as well as reducing physical activity to allow the bowel to rest (Rebar et al., 2019).

Dietary changes are implemented to decrease bowel activity while still providing adequate nutrition. Suggestions for meal planning and intake include recommending the following actions for patients to implement (Crohn's & Colitis Foundation, 2021c):

- Eat four to six small meals daily rather than three large meals.
- Stay hydrated with water, broth, tomato juice, or a reduction solution.
- Drink beverages slowly. Avoid using a straw, which can cause the ingestion of air that leads to flatulence.
- Prepare meals in advance. Keep foods that are well tolerated on hand.
- Use simple methods to cook such as boiling, grilling, steaming, and poaching.
- Use a food journal to keep track of what is eaten and what foods cause or exacerbate symptoms.

The Crohn's and Colitis Foundation (2021c) suggests that patients avoid the following foods when experiencing a flare-up of the disease:

- Insoluble fiber foods that are difficult to digest including raw green vegetables, fruits with skin and seeds, whole nuts, and whole grains.
- Lactose, the sugar found in dairy products such as milk and cream.
- Non-absorbable sugars that are found in sorbitol, mannitol, sugar-free gum, candy, and ice cream.
- Foods that are high in sugar such as baked goods, candy, and juices.
- High-fat foods including butter, coconut, margarine, cream, and foods that are fatty, fried, or greasy.
- Alcohol and caffeinated beverages including beer, wine, liquor, coffee, and soda.

Nursing Interventions

Nurses have a great deal of responsibility to provide effective patient/family education. Education topics of particular importance include the following (Rebar et al., 2019):

- Medication.
- Stress reduction.
- Diet and nutrients.
- Emotional support and counseling.
- Lifestyle changes and how to implement them.

During hospitalization nurses should carefully monitor patients' intake and output and weight and monitor for signs of dehydration. It is important for patients to be monitored for fever and pain on urination, which may suggest the development of a bladder fistula. Abdominal pain, fever, and a hard distended abdomen are signals of an intestinal obstruction (Rebar et al., 2019).

If patients have an ileostomy, they must be able to demonstrate proper ostomy care and should have a consultation with an ostomy therapist. Patients should also be referred to support groups and counseling as needed (Rebar et al., 2019).

Type 1 diabetes

James Patten is a 25-year-old who has recently accepted his first position as a clinical engineer. He has worked hard to earn this job and is eager to excel. He has developed annoying symptoms over the past 4 weeks. These include severe thirst, extreme hunger, frequent urination, and unintentional weight loss. James' healthcare provider told him he has type 1 diabetes. His first response is, "That can't be right. Only kids get this kind of diabetes! You have made a mistake." James's response is not unusual. However, experts now know that type 1 diabetes can also develop in adults.

Type 1 diabetes (T1D) is an autoimmune disease that develops when the pancreas stops producing insulin. People can be diagnosed with T1D at any age, but it is the most common childhood endocrine disorder (Meadows-Oliver, 2019).

An estimated 1.6 million Americans are living with T1D, including about 200,000 youth (people less than 20 years of age) and 1.4 million adults (people 20 years of age and older; JDRF, n.d.).

Statistics that indicate the probable future development of T1D and its significance include the following (JDRF, n.d.):

- About 64,000 people in the US are diagnosed with T1D each year.
- It is expected that five million people in the US will have T1D by 2050, including almost 6,000,000 youth.
- In the US, there are $16 billion in T1D-associated healthcare costs and lost income annually.
- Less than 33% of people with T1D in the US are consistently achieving target blood-glucose control levels.

Pathophysiology

In T1D, the beta cells of the pancreas are destroyed or suppressed. The disease is divided into two types: idiopathic and immune-mediated. Idiopathic T1D causes a permanent insulin deficiency with no evidence of autoimmunity. In immune-mediated T1D there is an autoimmune attack on beta cells. This type of attack causes an inflammatory response known as insulitis (Rebar et al., 2019).

Evidence-based practice! Research shows that by the time signs and symptoms are evident, 80% of beta cells have been destroyed (Rebar et al., 2019).

Although signs and symptoms occur rather abruptly, it can take months or even years for enough beta cells to be destroyed before these signs and symptoms appear. Signs and symptoms, once evident, can be severe (Centers for Disease Control and Prevention (CDC)), (2021c).

Nursing consideration: Symptoms of T1D are similar to those of other health conditions. Nurses must encourage patients to immediately seek medical help if signs and symptoms develop. Untreated T1D can lead to severe, even fatal, health conditions (CDC, 2021c).

The development of T1D typically occurs in three stages (Lucier & Weinstock, 2021):

- **Stage 1**: Stage 1 is characterized by a lack of symptoms and a normal fasting glucose, normal glucose tolerance, and the presence of greater than, or equal to, two pancreatic autoantibodies.
- **Stage 2**: Stage 2 diagnostic criteria include the presence of greater than or equal to 2 pancreatic autoantibodies and dysglycemia (glucose of 100 to 125 mg/dl), impaired glucose tolerance (2-hour PG of 140 to 199 mg/dL), or a hemoglobin A1C between 5.7% to 6.4%. Patients remain asymptomatic.
- **Stage 3**: In Stage 3 the patient has hyperglycemia with clinical symptoms and two or more pancreatic autoantibodies.

Etiology. The exact cause of T1D is unknown. However, several risk factors and possible trigger factors have been identified, including the following:

- **Genetics**: Having a family history of T1D puts people at greater risk of developing the disease. However, the majority of diagnoses are found in people who have no family members with the disease (JDRF, n.d.).
- **Viral Infections**: Viral infections may be triggers for T1D development (JDRF, n.d.).
- **Geography**: The further away from the equator a person lives, the greater the incidence of T1D (Mayo Clinic, 2021c).
- **Age**: Although T1D can occur at any age, it seems to peak at two specific age ranges. The first peak appears in children between the ages of 4 and 7 years old. The second peak is in children between the ages of 10 and 14 years old (Mayo Clinic, 2021c).

Nursing consideration: Unlike type 2 diabetes, no dietary changes can be made to prevent the onset of T1D. Likewise, lifestyle factors such as exercise and weight do not contribute to T1D development (JDRF, n.d.). Some insulin regimens can be very expensive, so this should be discussed with patients to help them avoid skipping doses.

Complications. Maintaining a normal blood glucose level can significantly reduce the occurrence of complications. Such complications may be disabling or even fatal. Without insulin to facilitate the entry of glucose into the cells, blood glucose levels increase and complications may be likely (Mayo Clinic, 2021c).

Complications linked to T1D include the following (Mayo Clinic, 2021c):

- **Cardiac and vascular diseases**: T1D radically increases the risk of cardiovascular diseases such as coronary artery disease (CAD), angina, heart attack, stroke, atherosclerosis, and hypertension.
- **Neuropathy**: Excessive blood glucose levels may injure the capillaries that nourish the nerves. Symptoms of neuropathy include tingling, numbness, and burning or pain that typically starts at the tips of the toes or fingers and spreads gradually. If blood glucose levels are not controlled, all sensation may be lost in the affected limbs. If the nerves of the gastrointestinal tract are damaged, patients may suffer from nausea, vomiting, diarrhea, or constipation. In men, erectile dysfunction may occur.
- **Diabetic retinopathy**: If the blood vessels of the retina are damaged, the patient may go blind. Other conditions linked to diabetic retinopathy include cataracts and glaucoma.
- **Damage to the feet**: Nerve damage or reduced blood flow to the lower extremities increases the risk of complications to the feet. Without treatment, even minor cuts and blisters can become quite serious, leading to infections that may eventually require the amputation of toes, feet, or leg(s).
- **Skin and mouth issues**: Patients may be more vulnerable to skin and mouth infections including those caused by bacteria and fungi. Disease of the gums and dry mouth are also likely.
- **Pregnancy issues**: If the T1D is poorly controlled in pregnant females, the risk of miscarriage, stillbirth, and birth defects increases. The risk of diabetic ketoacidosis, retinopathy, pregnancy induced hypertension, and preeclampsia may also increase.

Diabetic ketoacidosis (DKA) is a serious, acute metabolic complication characterized by hyperglycemia, hyperketonemia, and metabolic acidosis. DKA is most common in patients with T1D and occurs when insulin levels are inadequate to meet the body's basic metabolic requirements. Hyperglycemia causes osmotic diuresis with severe fluid and electrolyte loss (Merck Manual, 2020b).

Signs and symptoms of DKA include nausea, vomiting, and (especially in children) abdominal pain. If untreated, significant decompensation can occur. Patients may display hypotension and tachycardia because of dehydration and acidosis. To compensate for acidemia, respirations increase in rate and depth (Kussmaul respirations). The patient's breath may have a fruity odor because of exhaled acetone (Merck Manual, 2020b).

Treatment consists of rapid intravascular volume repletion with 0.9% saline given IV, correction of hyperglycemia and acidosis, and prevention of hypokalemia. Treatment should take place in critical care settings because of the need for hourly clinical and laboratory assessments with necessary adjustments indicated by assessment results (Merck Manual, 2020b).

Assessment and Diagnosis

Patients are assessed for common symptoms of T1D. These include the following (Mayo Clinic, 2021c; Rebar et al., 2019):

- Increased thirst.
- Extreme hunger.
- Frequent urination.
- Unintended weight loss
- Fatigue.
- Weakness.
- Blurred vision.
- Irritability.
- Mood changes.
- In children, bed-wetting in those who did not previously wet the bed at night.

A thorough history and physical are conducted to help rule out other conditions. In addition to history, physical, and a review of signs and symptoms, several diagnostic tests are performed. These include the following (Mayo Clinic, 2021c; Rebar et al., 2019):

- **Glycated hemoglobin (A1C) test**: The A1C is a blood test that reports average blood glucose levels for the past 2 to 3 months. The test measures the percentage of blood glucose that is attached to the body's hemoglobin. The higher the glucose levels, the higher the percentage of hemoglobin with attached glucose. An A1C level of 6.5% or higher on two separate tests is an indicator of T1D.
- **Random blood glucose test**: This test requires that a blood sample be obtained at a random time and confirmed by repeat testing. A random blood glucose level of 200 mg/dL or higher suggests T1D, particularly if the patient has signs and symptoms of T1D.
- **Fasting blood glucose test:** The fasting blood glucose test requires that a blood sample be obtained following an overnight fast. A fasting blood glucose level of less than 100 mg/dL is normal. A level from 100-125 mg/dL is classified as prediabetes. A level of 126 mg/dL or higher on two separate tests is diagnostic for T1D.
- **Antibody test:** If a diagnosis of diabetes is made, the healthcare provider may order blood tests to check for antibodies that are common in T1D. Presence of antibodies helps to differentiate between T1D and type 2 diabetes when the diagnosis is uncertain.

Nursing consideration: Certain conditions such as pregnancy or having a hemoglobin variant may interfere with the accuracy of the A1C test. In these types of cases, the healthcare providers will rely on additional blood tests to determine an accurate diagnosis.

Self-Assessment Question 4

A young pregnant female is being evaluated for T1D. Which of the following statements are accurate in this situation?

a. Two separate fasting blood glucose tests with a result of 126 mg/dL are diagnostic for diabetes.
b. The A1C test is the best diagnostic test to determine T1D in pregnant females.
c. Random blood glucose tests are contraindicated for pregnant females.
d. The glycated hemoglobin test indicates the average blood sugar for the past 2 to 4 weeks.

Treatment

T1D is managed with a variety of insulins. Patients, families, and the healthcare team must work together to find the best treatment regimen. Types of insulin may include the following (JDRF, n.d.):

- **Rapid acting**: Starts working in about 15 minutes after injection. It peaks in about 1 hour and continues for about 2 to 4 hours after injection. Examples include aspart (Novolog), glulisine (Apidra), and lispro (Humalog).
- **Regular or short acting**: Starts working 30 minutes after injection, peaks from 2 to 3 hours after injection, and continues to work for about 3 to 6 hours. An example is Humulin R.
- **Intermediate acting**: Starts working 2 to 4 hours after injection. It peaks about to 12 hours later and lasts 12 to 18 hours. An example is Novolin N.
- **Long acting**: Long acting is often combined with rapid or short acting insulin. It starts to work several hours after injection and tends to lower glucose levels up to 24 hours. An example is Lantus.
- **Ultra-long lasting**: Starts to work in 6 hours, but it does not peak and lasts an estimated 36 hours. An example is Tresiba.

Insulin is administered in a variety of ways. Historically, insulin was administered via injection using a syringe. Today, other options are available including the following (CDC, 2021a; JDRF, n.d.):

- **Insulin pen**: Some pens use cartridges that are inserted into the pen while others are pre-filled and discarded after all insulin is used. The dose of insulin is dialed on the pen and the insulin is injected through a needle.
- **Insulin pump**: About the size of a small cell phone, insulin pumps provide a basal dose of short or rapid-acting insulin per hour. When blood sugar is high, the patient calculates the dose and the insulin in the pump delivers the bolus.
- **Artificial pancreas**: The artificial pancreas is a hybrid closed-loop system that requires minimal patient intervention. It is a combination of the technology of a pump with that of a continuous glucose monitor.
- **Inhaled insulin**: Inhaled insulin is taken by using an oral inhaler to deliver ultra-rapid-acting insulin at the start of meals. Inhaled insulin is used in conjunction with an injectable long-acting insulin.
- Additional treatment interventions include having personalized meal plans designed to meet nutritional needs, control blood glucose levels, and help patients maintain ideal body weight. With the guidance of healthcare providers, patients should participate in regular exercise. Patients should be cautioned that physical activity lowers blood glucose levels. Thus, blood glucose levels should be monitored frequently. Patients may need to adjust their meal plans or insulin to compensate for increased physical activity (Mayo Clinic, 2021c; Rebar et al., 2019).

Nursing Interventions

Nursing interventions focus on education and emotional support. Patients and families need education pertaining to meal planning, exercise, and insulin administration. Emotional support is also critical to the success of any treatment regimen (Rebar et al., 2019).

Patients and families also need information about potential complications, how to recognize them, and what to do if they occur. It is recommended that families pay special attention to the issue of complications. Teachers should be informed that a child is diabetic and they must be aware of emergency procedures. In some cases, patients experiencing complications (such as DKA) may not be able to articulate the need for help or describe their symptoms at the time. It is, therefore, absolutely essential that family members and other caretakers be able to intervene correctly in the event that complications occur (Rebar et al., 2019). DKA is a medical emergency and must be treated immediately.

Systemic lupus erythematosus

Systemic lupus erythematosus (commonly referred to as lupus) is a chronic, inflammatory, autoimmune disorder that affects the connective tissues (Rebar et al., 2019). The determination of incidence and prevalence of lupus is a challenge. There are several issues that make it difficult to collect accurate data. These include the following (Lupus Foundation of America, 2020; National Resource Center on Lupus, 2021):

- Difficulty in deciding what constitutes a case of lupus. There are multiple types of lupus and they have overlapping signs and symptoms.
- There is no specific test for the diagnosis of lupus. An estimated 40% of people with lupus report that their healthcare providers initially said that they had some disorder other than lupus.
- Twenty-three percent of patients were told that their problems were psychological, not physical.
- No two cases of lupus are the same, which makes it difficult to recognize and diagnosis the disease.

Nursing consideration: The Lupus Foundation of America estimates that 1.5 million Americans are living with a form of lupus (National Resource Center on Lupus, 2021). Nurses must support ongoing lupus research and be alert to the signs and symptoms that suggest the disease.

Lupus can affect anyone. It is diagnosed in women, men, children, and even newborns. It is much more common in women than in men. About 90% of diagnosed cases of lupus are women of reproductive age. Women are often diagnosed between the ages of 15 and 44. Lupus is also more prominent in certain ethnicities including African American, Hispanic, Asian, and Native American women compared to Caucasian women (Cleveland Clinic, 2021).

Pathophysiology

The exact etiology of lupus is unknown. However, experts believe that the primary cause is autoimmunity, along with environmental, hormonal, genetic, and (possibly) viral factors. In autoimmune diseases, the body produces antibodies against its own cells. A significant factor in the pathophysiology of lupus is the production of antibodies that attack various tissues of the body. These include red blood cells (RBCs), neutrophils, platelets, lymphocytes, or almost any organ or tissue (Rebar et al., 2019).

Risk Factors. The majority of people with lupus have a genetic predisposition for the disease (Rebar et al., 2019). Additional risk factors include the following (Cleveland Clinic, 2021; Mayo Clinic, 2021a):

- **Sex**: Lupus is more common in females.
- **Age**: Although lupus is diagnosed in all age groups, it is most often diagnosed between the ages of 15 and 45.
- **Race**: Lupus is more common in African Americans, Hispanics, and Asian Americans.
- **Environmental factors:** Although not specifically identified, environmental factors such as the amount of sunlight a person is exposed to, medications taken, stress, and viral infections are being investigated as contributing to the development of lupus.
- **Smoking**: A history of smoking may also increase risk of lupus.

Types of Lupus. Although systemic lupus erythematosus is the most common type of lupus, there are several additional types. These include the following (Cleveland Clinic, 2021):

- **Cutaneous lupus erythematosus**: This type of lupus affects the skin. It is characterized by various skin issues such as photosensitivity and rashes. Hair loss may also occur.
- **Drug-induced lupus**: Certain medications may cause lupus. Rather than being a chronic disease, drug-induced lupus is typically temporary. Usually, this type of lupus resolves after the medication is discontinued. However, in rare instances, symptoms continue even after the medications are stopped.
- **Neonatal lupus**: Neonatal lupus is quite rare. When it does occur, it is found in infants at birth. Infants born with neonatal lupus have antibodies that were passed to them from their mothers, who either had lupus at the time of pregnancy or developed the disease later in life.

Organs Affected by Lupus/Complications. Lupus can affect many different areas of the body, which can lead to complications of various degrees of severity. These include the following (Cleveland Clinic, 2021; Mayo Clinic, 2021a):

- **Blood and blood vessels**: Lupus may cause serious reductions in the number of red blood cells (RBCs), white blood cells (WBCs), and/or platelets. Blood vessel inflammation may also occur.
  These alterations in blood counts may lead to fatigue, anemia, serious infections, and/or easy bruising. Patients are also prone to deep vein thrombosis, pulmonary embolus, and stroke. Blood clot development may be linked to the production of antibodies. Note that patients may not have symptoms that suggest blood and blood vessel abnormalities.
- **Brain and central nervous system (CNS)**: Brain involvement is characterized by headaches, dizziness, behavior changes, vision problems, strokes, and seizures. Memory problems may become evident and patients may have trouble expressing themselves.
- **Heart**: Lupus may cause inflammation of the heart muscle, pericardium, and arteries.
- **Joints**: Arthritis is a common finding in patients who have lupus. Joint pain (with or without swelling) and stiffness are noted, especially in the morning after awakening. Arthritis may last for days or weeks or become permanent.
- **Kidneys**: Kidney complications are found in half of patients with lupus. In fact, kidney damage and kidney failure are one of the leading causes of death in patients with lupus. Kidney disease does not typically cause symptoms until the disease is in the advanced stages.
- **Lungs**: Lung involvement may cause pleural inflammation, pneumonia, and bleeding into the lungs.
- **Skin**: Skin problems are common in patients with lupus. These include a characteristic red rash over the cheeks and the bridge of the nose, plaques, skin rashes exacerbated by sunlight, hair loss, and mouth sores.

Other types of complications associated with lupus include the following (Mayo Clinic, 2021a):

- **Infection**: Patients with lupus are more susceptible to infections because the disease and its treatments weaken the immune system.
- **Malignancies**: Having lupus leads to a small risk of increased vulnerability to malignancies.
- **Death of bone tissue**: When the bone's blood supply is reduced, tiny breaks in the bone may occur, leading to the collapse of the bones.
- **Complications of pregnancy**: Lupus increases the risk of miscarriage, pregnancy-induced hypertension, and preterm birth. Healthcare providers often recommend that women should delay pregnancy until the disease has been under control for at least 6 months.

Assessment and Diagnosis

Making a diagnosis of lupus is challenging because signs and symptoms vary considerably among patients and may change overtime. These signs and symptoms are also common to many other diseases (Mayo Clinic, 2021a).

Healthcare providers will conduct a thorough history and physical and carefully review patients' signs and symptoms. Detailed descriptions of signs and symptoms are found in the section on pathophysiology. As a summary, Figure 4 displays the most common signs and symptoms of lupus.

Figure 4. Most Common Symptoms of Lupus Erythematosus

Note. From Haggstrom, M., 2009

Laboratory Tests. Although no single test can diagnose lupus, several tests are used to help determine diagnosis. Tests include the following (Mayo Clinic, 2021a; Rebar et al., 2019):

- **Complete blood count (CBC)**: Results may show anemia and/or a reduced white blood count (WBC), both of which may occur in lupus.
- **Serum electrophoresis**: Serum electrophoresis may show hypergammaglobulinema.
- **Chest X-rays**: Chest X-rays may reveal pleurisy or lupus pneumonitis.
- **Kidney and liver assessment**: Blood tests may be ordered to help assess kidney and liver functioning.
- **Urinalysis**: Urinalysis may show elevated protein levels or the presence of RBCs in the urine.
- **Antinuclear antibody (ANA) Test**: A positive test for the presence of antibodies suggests a stimulated immune system. Most people with lupus have a positive ANA test. However, most people with a positive ANA test do not have lupus. A positive ANA test calls for more-specific antibody testing.
- **Echocardiogram**: Echocardiograms may show cardiac abnormalities.

Treatment

Lupus is a chronic condition that needs ongoing management. The overall goals of treatment are to promote remission of symptoms and limit the damage that the disease does to patients' organs (Cleveland Clinic, 2021).

> **Nursing consideration:** Lupus is an unpredictable disease that can change with time. This means that treatment interventions may need to be changed to meet the current state of the disease (Cleveland Clinic, 2021

Medications are the foundation of treatment for lupus. Medications most often prescribed to treat lupus include the following (Cleveland Clinic, 2021; Mayo Clinic, 2021a; Rebar et al., 2019):

- **Corticosteroids**: Corticosteroids such as prednisone are prescribed to reduce the inflammatory process. Steroid creams can be applied directly to rashes. Steroid pills in low doses may be effective for patients with mild to moderate forms of the disease. High doses of steroids such as methylprednisolone (Medrol) are frequently used to control serious disease involving the kidneys and brain and other internal organs. Unfortunately, high doses of steroids often produce side effects. Side effects include weight gain, bruising easily, hypertension, diabetes, and bone diseases such as osteoporosis.

> **Nursing consideration:** Initial prednisone doses of 60 mg or more are typical. Noticeable improvement of the patient's condition is usually apparent within 48 hours. After symptoms are controlled, the dosage is tapered gradually and then discontinued (Rebar et al., 2019).

- **Hydroxychloroquine (Plaquenil)**: Hydroxychloroquine is an antimalarial drug that has been prescribed to help keep lupus-related skin and joint disease under control. It has also been found to be effective in the treatment of fatigue and mouth sores.
- **Azathioprine (Imuran)**: An immunosuppressant, azathioprine (originally used to prevent transplanted organ rejection) is generally used to treat the more serious aspects of the disease.
- **Methotrexate (Rheumatrex)**: Methotrexate is an antineoplastic drug used to suppress the immune system. It has been found to be helpful in the treatment of lupus-related skin disease, arthritis, and other forms of the disease that are not life-threatening. This medication is used for patients who have not responded to drugs such as hydroxychloroquine or low doses of prednisone.
- **Cyclophosphamide (Cytoxan) and mycophenolate mofetil (CellCept)**: These are antineoplastic drugs that significantly reduce immune system activity. They are used to treat more severe forms of lupus, particularly if there is kidney involvement.
- **Belimumab (Benlysta)**: Belimumab is a monoclonal antibody used to reduce the activity of lymphocytes, which produce autoantibodies. Autoantibodies cause tissue damage and their suppression is the reason they are prescribed to treat lupus. Belimumab is used to treat lupus that does not involve the kidneys and has not responded to other interventions.
- **Rituximab (Rituxan)**: Rituximab is a monoclonal antibody that reduces lymphatic activity. It is occasionally used to treat lupus that has not responded to other types of treatments.

Some complementary treatments for lupus include the following (Cleveland Clinic, 2021):

- **Dehydroepiandrosterone (DHEA)**: Supplements that contain this hormone, in conjunction with conventional treatment, may help reduce the occurrence of flares of lupus. DHEA may cause acne in women.
- **Fish oil**: Fish oil supplements that contain omega-3 fatty acids may have some beneficial effects. Research is underway to identify specific effects and how these effects occur. Side effects of fish oil supplements include nausea, belching, and a "fishy" taste.
- **Acupuncture**: Acupuncture may help to ease the muscle pain that is associated with lupus.

Nursing Interventions

Patients may have a difficult time adjusting to a disease that is a life-long problem. Nurses should assess the effectiveness of patients' support systems, which are critical to the health and wellness of a patient with lupus (Mayo Clinic, 2021a; Rebar et al., 2019)

Feelings of helplessness, anger, fear, and frustration are common in patients who have lupus. They are at risk of mental health problems such as depression, anxiety, and low self-esteem. Patients' mental health should be monitored and referrals made to mental health professionals as needed (Mayo Clinic, 2021a).

Nurses are usually the members of the healthcare team who provide medication education to patients and families. Patients and families must demonstrate knowledge of what medications have been prescribed, route, dose, side effects, and what to do if side effects occur (Rebar et al., 2019).

Patients and families should learn all they can about their disease and how to monitor their signs and symptoms. Regular appointments with their healthcare providers are essential for ongoing monitoring and treatment adjustments (Rebar et al., 2019).

Self-Assessment Question 5

An antimalarial drug used to keep lupus-related skin and joint disease under control is:

a. Methotrexate.
b. Azathioprine.
c. Hydroxychloroquine.
d. Belimumab.

Multiple sclerosis (MS)

Multiple sclerosis (MS) is an immune-mediated disease in which an abnormal immune system response is directed against the central nervous system (CNS; National Multiple Sclerosis Society [MS], 2020a). MS is characterized by a progressive demyelination of the white matter of the brain and spinal cord, which can lead to widespread neurological dysfunction (Rebar et al., 2019).

An estimated 2.8 million people throughout the world live with MS. Prevalence of the disease has increased in every region of the world since 2013.The mean age at diagnosis is 32 years of age. Females are twice as likely to live with MS compared to males (Walton et al., 2020).

In the US, results from a recent study funded by the National MS Society confirmed that nearly one million people are living with the disease. This is double the estimate from an earlier study (National MS Society, 2020b).

The majority of people with MS have a relapsing-remitting disease course. These patients experience periods of new symptoms or exacerbations of previous symptoms that take place over days or weeks. Patients usually improve partially or completely after each relapsing period. Relapses are typically followed by periods of disease remission. Remissions can last for months or even years. Other persons may be diagnosed with primary-progressive MS, which is characterized by a steady progression of signs and symptoms without relapse (Mayo Clinic, 2020b).

Evidence-based practice! At least half of patients with relapsing-remitting MS eventually experience a steady progression of symptoms without periods of remission. This is referred to as secondary-progressive MS (Mayo Clinic, 2020b).

Pathophysiology

In MS the immune system destroys myelin (the fatty substance that coats and protects nerve fibers in the spinal cord and brain). Myelin is critical to the transport of electrical impulses to the brain for interpretation. The myelin sheath is a lipoprotein complex that is formed by glial cells. It protects the nerve axon (the neuron's long nerve fiber) similarly to the insulation on electrical wires. (Rebar et al., 2019).

Myelin can be damaged by hypoxemia, toxic chemicals, vascular insufficiency, or autoimmune responses such as those with MS. A summary of the pathological process that occurs when myelin is damaged is as follows (National MS Society, 2020a; Rebar et al., 2019):

- When myelin is damaged the myelin sheath becomes inflamed.
- Inflammation causes the membrane layers of the myelin sheath to break into smaller components.
- The smaller components become circumscribed plaques, which are filled with lymphocytes, microglial elements, and macroglia. This is referred to as demyelination.
- The damaged myelin sheath is unable to appropriately transport messages to the brain. Messages within the CNS are either altered or stopped completely.
- Damage to areas of the CNS produce various neurological symptoms that vary in type and severity.
- Damaged areas develop scar tissue. Areas are multiple, which leads to the name of the disease: multiple sclerosis.

Assessment and Diagnosis

To date, there are no signs, symptoms, physical findings, or laboratory tests that can make a definitive diagnosis of MS. Diagnosis is made based on the findings of a careful physical and mental examination/history, a neurologic exam, lab studies, and imaging studies (National MS Society, 2021).

Before MS can be diagnosed, other causes must be excluded since there are many causes of neurological signs and symptoms. For some people, the diagnostic process may be fairly rapid. For others, it may take quite a bit longer. Waiting for a diagnosis is stressful and frightening. It is crucial that a diagnosis be made as accurately and as quickly as possible so that patients can begin to adjust to the reality of having the disease and treatment can begin as early as possible (National MS Society, 2021).

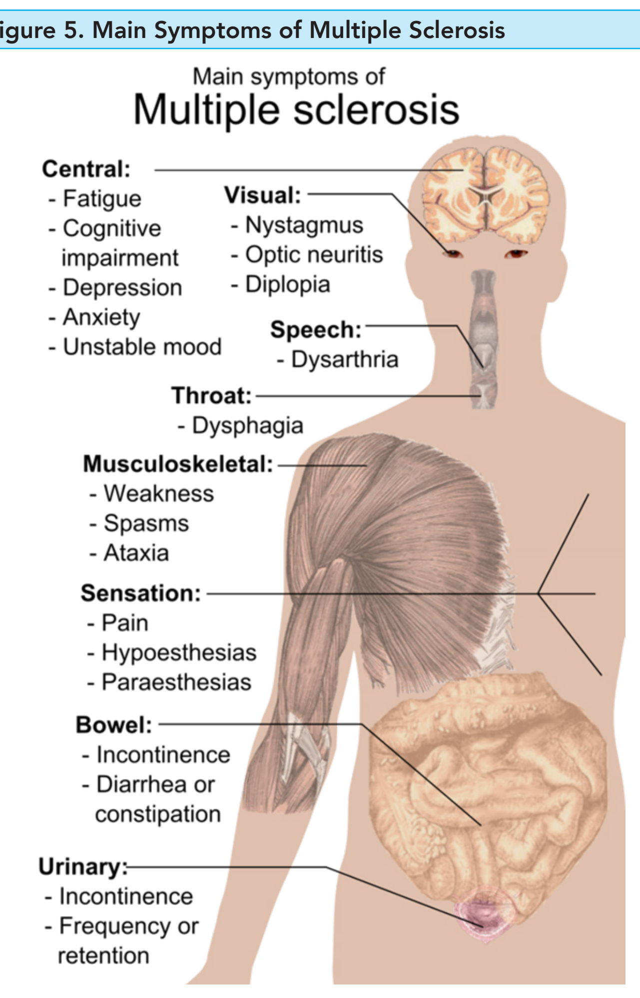
Signs and Symptoms. Assessment of signs and symptoms can be challenging because they are both unpredictable and hard for the patients to describe. Signs and symptoms may be transient or may last for hours or weeks. Typically, there are two general categories of initial symptoms: vision problems (because of optic neuritis) and sensory impairment such as paresthesia (Rebar et al., 2019).

Patients experience a variety of signs and symptoms including the following (Rebar et al., 2019):

- Vision issues such as blurred vision, scotoma, ophthalmoplegia.
- Emotional lability.
- Dysphagia.
- Poorly articulated speech.
- Muscle weakness.
- Muscle spasticity.
- Hyperreflexia.
- Urinary problems.
- Intention tremors.
- Ataxia.
- Bowel problems.
- Cognitive dysfunction.
- Fatigue.
- Varying degrees of paralysis.

Figure 5 provides an overview of the main symptoms of MS.

Figure 5. Main Symptoms of Multiple Sclerosis



Note. From Häggström, 2014

Blood and Imaging Tests. The following tests, while not definitive, can help to make the diagnosis of MS (Mayo Clinic, 2020b; Rebar et al., 2019):

- **MRI**: MRI is the most sensitive method to identify areas of MS lesions on the brain and spinal cord. It is also used to evaluate the progression of the disease.
- **Lumbar puncture**: A sample of cerebrospinal fluid can show elevated immunoglobulin G levels, but normal protein levels. This is significant only when serum gamma O levels are normal, and it reflects immune system hyperactivity because of chronic demyelination. The WBC count may be slightly elevated. Results of a lumbar puncture can help to rule out infections and other disorders with signs and symptoms similar to MS.
- **Evoked potential tests**: These tests record electrical activity produced by the CNS. CNS damage may cause slowing of electrical conduction.
- **Blood tests**: Blood tests help to rule out other disorders with signs and symptoms similar to those of MS. Blood tests may also be used to check for specific biomarkers associated with MS.

Diagnostic Criteria: The Revised McDonald Criteria, published in 2017 by the International Panel on the Diagnosis of Multiple Sclerosis, includes guidelines for using findings from MRIs and lumbar puncture. These can help to speed up the diagnostic process (National MS Society, 2021).

According to these criteria, in order to make a diagnosis of MS there must be (National MS Society, 2021):

- Evidence of damage in at least two separate areas of the CNS.
- Evidence that the damage occurred at different points in time.
- Elimination of all other possible diagnoses.

Risk Factors. There are a number of risk factors associated with MS that may be used in the diagnostic process. These include the following (Mayo Clinic, 2020b):

- **Age**: Although MS can occur at any age, its onset typically occurs around the ages of 20-40 years of age.
- **Certain autoimmune diseases**: A higher risk of MS is associated with people who have other autoimmune disorders such as thyroid disease, type 1 diabetes, or inflammatory bowel disease.
- **Certain infections**: Viral infections have been linked to MS development. An example is infection with the Epstein-Barr virus, which causes infectious mononucleosis.
- **Climate**: MS is more common in countries with temperate climates, including the northern US, Canada, New Zealand, Europe, and southeastern Australia.
- **Race**: Whites, especially those of Northern European ancestry, have the greatest risk of developing MS. People of Asian, African American, or Native American descent have the lowest risk.
- **Family history**: Risk increases if one's parents or siblings were diagnosed with MS.
- **Sex**: Research shows that women are more than two to three times as likely as men to have relapsing-remitting MS.
- **Smoking**: Research shows that smokers are more likely than non-smokers to have a second event that confirms a diagnosis of relapsing-remitting MS.
- **Vitamin D**: Low levels of vitamin D and low exposure to sunlight increases the risk of MS.

Complications. Complications associated with MS include the following (Mayo Clinic, 2020b):

- Muscle stiffness and spasticity.
- Paralysis.
- Bowel and bladder problems.
- Sexual dysfunction.
- Mental changes such as forgetfulness and/or mood swings.
- Depression.
- Epilepsy.

Treatment

Treatment goals are to shorten exacerbations, relieve neurologic deficits (if possible), and facilitate the maintenance of maximum health and wellness (Rebar et al., 2019). To date, MS treatment falls into three categories: abortive therapies, preventive therapies, and symptomatic therapies (Johns Hopkins Medicine, n.d.).

Abortive Therapies. An MS exacerbation is defined as "new or returning neurological symptoms that have evolved over at least 24-48 hours and have not been provoked by a metabolic cause, such as a fever" (Johns Hopkins Medicine, n.d.).

For acute exacerbations of symptoms, steroids may be prescribed to shorten both the duration and the intensity of the attack. The typical regimen involves intravenous administration of methylprednisolone once a day for 3 to 5days. Intravenous therapy may be followed with oral steroids such as oral prednisone. These oral steroid pills are given in tapering doses for an additional 1 to 2 weeks (Johns Hopkins Medicine, n.d.; Mayo Clinic, 2020b).

Plasma exchange (plasmapheresis) may also be used during acute attacks following steroid therapy. During plasmapheresis, blood plasma is removed from the body and separated from the blood cells. The blood cells are mixed with albumin and returned to the body. Plasmapheresis is most often used if patients' symptoms are new, severe, and have not responded to steroids (Johns Hopkins Medicine, n.d.; Mayo Clinic, 2020b).

Preventive Therapies. The Food and Drug Administration (FDA) has approved, to date, a number of preventive therapies to reduce the frequency and severity of exacerbations or to treat worsening MS (Johns Hopkins Medicine, n.d.).

The FDA-approved preventive therapies include the following (Johns Hopkins Medicine, n.d.; Rebar et al., 2019):

- **Interferon beta-1-a**: This beta interferon is given once a week by intramuscular (IM) injection or beta interferon administered via injection under the skin three times a week.

- **Interferon beta-1b**: This therapy may be administered via injection every other day. Frequency depends on specific therapy and patient needs.

Nursing consideration: Interferon betas have various side effects. In addition to redness and discomfort at the injection site, side effects include fever, chills, achiness, fatigue, depression, and changes in liver function. While patients are receiving interferon, they need to be monitored for changes in liver function on a regular basis. All interferons work by interfering with the immune system's ability to cause inflammatory processes (Johns Hopkins Medicine, n.d.).

- **Glatiramer acetate**: This drug is a synthetic protein that is similar to a component of myelin. Given subcutaneously, glatiramer acetate is believed to work by modifying the immune system so that it produces more anti-inflammation immune cells. Side effects include redness, swelling, and itching at the injection site. A small number of patients may experience a "post injection reaction," which is a brief period of flushing, racing of the heart, feeling faint, and shortness of breath.
- **Natalizumab**: Natalizumab is a monoclonal antibody administered intravenously once every 4 weeks. This drug is believed to work by preventing lymphocytes from entering the CNS. Natalizumab may produce a rare, but serious, possibly fatal, infection of the brain called progressive multifocal leukoencephalopathy (PML).
- **Mitoxantrone**: Mitoxantrone is a chemotherapeutic drug that is used for patients experiencing worsening forms of relapsing MS and secondary progressive MS. It is given intravenously every 3 months. The potential for toxicity is high, so patients may receive a limited number of doses throughout their lifespan. The drug is believed to work by suppressing the immune system to reduce the number of immune cells that might be causing inflammation. Mitoxantrone is associated with cardiotoxicity.

There are also a number of oral medications administered to reduce relapse rates. These include the following (Comerford & Durkin, 2021; Mayo Clinic, 2020b):

- **Fingolimod (Gilenya)**: This drug is taken once daily. The patient's heart rate and blood pressure are monitored for 6 hours after the first dose because there is the potential for reduction in heart rate. Additional side effects include infections, headaches, hypertension, and blurred vision.
- **Teriflunomide (Aubagio)**: This is an oral medication taken once daily to reduce relapse rates. Teriflunomide can cause liver damage and hair loss, when taken by men or women or birth defects in the infants of pregnant women . Contraception should be used while taking this medication and up to 2 years afterward.
- **Siponimod (Mayzent)**: Siponimod can help to reduce the rate of relapse and slow progression of MS. It is also approved for use in secondary-progressive MS. This drug is harmful to a developing fetus. Contraception is advised while taking this medication and for 10 days after the medication is discontinued. Associated side effects include viral infections, liver dysfunction, and low WBC counts. Changes in heart rate, headaches, and vision problems may also occur.
- **Cladribine (Mavenclad)**: Cladribine is usually prescribed as a second line treatment for patients with relapsing-remitting MS as well as for secondary-progressive MS. It is administered in two treatment courses spread over a 2-week period over a period of 2 years. This drug is contraindicated in patients who have chronic infections, cancer, or who are pregnant or breastfeeding. Both men and women should use contraception while taking this drug and for 6 months after the medication is stopped. Side effects include upper respiratory infections, headaches, tumors, serious infections, and reduced levels of WBCs.

Symptomatic Therapies. Certain medications may be administered to control symptoms. Such medications include drugs for bladder issues, antidepressants, vertigo, and fatigue (Rebar et al., 2019).

Medications are not the only treatment initiative for patients with MS. It is important that an interdisciplinary team approach be used in the treatment of patients. Additional treatment initiatives may include the following:

- Physical therapy.
- Occupational therapy.
- Speech-language therapy.
- Neuropsychology therapy.

Complementary Medicine. Many people with MS use various alternative or complementary therapies to help manage systems. Complementary therapies include the following (Mayo Clinic, 2020b):

- Exercise.
- Meditation.
- Yoga.
- Massage.
- Acupuncture.
- Relaxation techniques.

Research findings suggest that maintaining adequate levels of vitamin D may have a protective effect and may lower the risk of developing MS. Some experts consider vitamin D supplementation as a modifiable risk factor for MS development (Mayo Clinic, 2021e).

Daily intake of vitamin D3 of 2,000-5,000 international units daily is recommended for patients with MS (Mayo Clinic, 2020b). However, it is important to note that very large doses of vitamin D over a long period of time may lead to toxicity. Signs and symptoms of vitamin D toxicity include nausea, vomiting, constipation, reduced appetite, weakness, and weight loss. Toxicity can also cause increased levels of blood calcium, which, in turn, can cause kidney stones (Mayo Clinic, 2021e).

Nursing Interventions

As mentioned throughout this education program, nurses often take the lead in medication administration education. Patients and families both need education regarding medication administration. Nurses should emphasize the importance of adhering to the prescribed regimen and how to recognize and report side effects (Comerford & Durkin, 2021).

Providing emotional support is critical. Patients' mental health should be monitored and appropriate interventions and referrals to mental health professionals made.

Family members/caregivers should also be monitored for mental health issues since they, too, are under emotional stress (Rebar et al., 2017).

- Educate and support patients and family with the following recommendations (Mayo Clinic, 2021b).
- Encourage patients to maintain normal daily activities as able.
- Encourage patients to interact and maintain contact with family and friends, but to avoid those with infections or contagious diseases while taking immunosuppressing medications
- Encourage patients to pursue hobbies that they enjoy and are able to do.
- Facilitate connections with support groups.
- Encourage patients and families to discuss feelings and concerns regarding living with MS.
- Explain that it is important for patients and families to monitor signs and symptoms, what causes them to become worse, and what, if anything, helps to reduce the symptoms.
- Explain that patients and families should write down questions and concerns to ask the healthcare team in order to avoid forgetting important issues.
- Encourage patients to bring a family member or friend with them when they have appointments with healthcare team members.

Self-Assessment Question 6

A patient who has MS also has cardiac disease. Which of the following drugs would probably NOT be appropriate for this patient?

a. Mitoxantrone.
b. Teriflunomide.
c. Natalizumab.
d. Cladribine.

Psoriasis

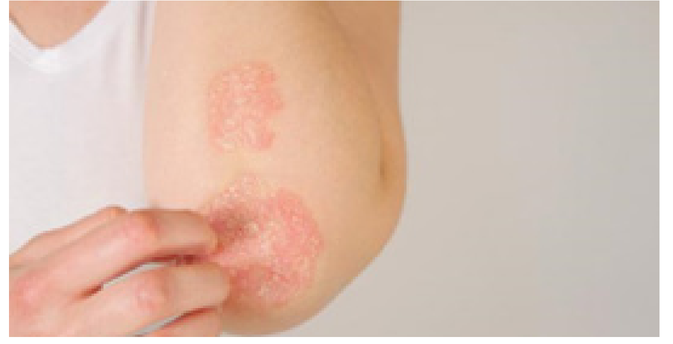
Psoriasis is a chronic autoimmune skin disease characterized by an acceleration of the growth cycle of skin cells. Although psoriasis can be treated, there is no cure. A dermatologist is often the best healthcare provider to diagnosis psoriasis because it has been confused with other skin disease, such as eczema (CDC, 2020b).

Psoriasis is characterized by raised, red, itchy, scaly patches on various parts of the body. Psoriasis patches can range from a few spots of dandruff-like scaling to major plaques that cover large areas. The areas most commonly affected are the lower back, elbows, knees, legs, soles of the feet, scalp, face, and palms (Mayo Clinic, 2020c).

An estimated 125 million people throughout the world (two to three percent of the total population) have psoriasis. In the US, more than three percent of the adult population is affected by psoriasis; this translates to more than 7.5 million adults (National Psoriasis Foundation, 2021).

Figure 6 is a picture of the characteristic patches on the skin of a patient with psoriasis.

Figure 6. Psoriasis Skin Patches



Note. image from Unsplash opensource

Pathophysiology

Psoriasis is a complex disease that appears to be influenced by genetic and immune-mediated facets. The exact trigger or triggers of the disease are unknown, but experts believe that triggers may include an infectious episode, traumatic insult, or stressful life events. Once triggered, a substantial number of leukocytes gather at the dermis and epidermis, which leads to characteristic psoriatic plaques. Many patients, however, have no obvious trigger (Habashy, 2021).

Possible Triggers. Many patients who are vulnerable to the development of psoriasis may be free of signs and symptoms for years until the disease is triggered by various environmental factors (Mayo clinic, 2020c). Common triggers include the following (Mayo Clinic, 2020c):

- Infections such as bacterial or skin infections.
- The weather, particularly a cold, dry environment.
- Injury to the skin such as severe sunburn, lacerations, or bug bites.
- Stress.
- Smoking as well as exposure to second-hand smoke.
- Heavy alcohol consumption.
- Certain medications such as lithium, anti-hypertensive medications, and antimalarial drugs.
- Swift withdrawal of oral or systemic corticosteroids.

Psoriasis can develop in anyone. An estimated 33% of cases begin in the pediatric years. The following factors increase risk of psoriasis (Mayo Clinic, 2020c:.

- **Family history**: Having one parent with psoriasis increases risk. If both parents have psoriasis, the risk increases even higher.
- **Stress**: Since stress can impact the immune system, high levels of stress may increase the risk of disease development.
- **Smoking**: Smoking tobacco products increases risk and may also increase the severity of the disease. Smoking may even play a part in the initial development of the disease.

Complications. Psoriasis increases the risk of developing other diseases including the following (Mayo Clinic, 2020c):

- Eye conditions such as conjunctivitis and blepharitis.
- Obesity.
- Type 2 siabetes.
- Hypertension.
- Cardiovascular disease.
- Other autoimmune diseases such as inflammatory bowel disease.
- Mental health disorders such as depression.

Pathogenesis. The epidermis is infiltrated by large numbers of activated T cells. These T cells seem to be capable of causing keratinocyte proliferation. Psoriatic plaques reveal large amounts of T cells within the psoriasis lesions. An uncontrolled inflammatory process occurs. Important findings in the affected skin include vascular engorgement because of superficial blood vessel dilation and a changed epidermal cell cycle (Habashy, 2021).

Assessment and Diagnosis

Patients are assessed for characteristic signs and symptoms of the disease and possible other causes of these signs and symptoms are investigated. It is important to rule out other skin conditions before making a diagnosis of psoriasis (Habashy, 2021).

Signs and Symptoms. There are several types of psoriasis. During patient assessment, it is important to differentiate among the various psoriasis types. These include the following (Mayo Clinic, 2020c):

- **Plaque psoriasis**: Plaque psoriasis is the most common type of psoriasis. It is characterized by dry, raised, red skin patches that are covered with silver-looking scales. The most common sites affected are elbows, knees, lower back, and scalp.
- **Guttate psoriasis**: Guttate psoriasis typically affects children and young adults. It is often triggered by a bacterial infection (e.g., strep throat) and is characterized by small, scaling lesions shaped like drops that are located on the trunk, arms, or legs.
- **Inverse psoriasis**: Inverse psoriasis usually affects the skin folds of the groin, buttocks, and breasts. It is characterized by smooth, red patches of skin. These patches become worse with friction and sweating. It is suspected that fungal infections trigger inverse psoriasis.
- **Nail psoriasis**: Nail psoriasis is characterized by pitting, abnormal nail growth, and discoloration. Affected nails may loosen and separate from the nail bed (onycholysis). Severe cases of nail psoriasis may cause affected nails to crumble.

- **Psoriatic arthritis**: Psoriatic arthritis is characterized by swollen, painful joints that are the typical signs of arthritis. Symptoms range from mild to severe. Psoriatic arthritis can affect any joint and causes stiffness and progressive joint damage. The joint damage may be permanent.
- **Pustular psoriasis**: Pustular psoriasis is a rare form of the disease. It is characterized by well-defined lesions that are filled with pus. These lesions are widespread patches or occur in smaller areas on the palms of the hands or the soles of the feet.
- **Erythrodermic psoriasis**: This is the least common type of psoriasis. Erythrodermic psoriasis can cover the whole body with a red, peeling rash, which can burn or itch intensely.

Common, general signs and symptoms of psoriasis are (Mayo Clinic, 2020c):

- Red patches of skin that are covered with thick, silvery scales.
- Small scaling spots that are commonly seen in children.
- Skin that is dry and cracked, and may bleed.
- Itching, burning, or soreness.
- Thick, pitted, or ridged nails.
- Joints that are swollen and stiff.

Diagnostic Tests. Laboratory studies and findings for patients with psoriasis may include the following (Habashy, 2021):

- Rheumatoid factor (RF) to differential psoriatic arthritis from rheumatoid arthritis. It is negative in psoriasis.
- Erythrocyte sedimentation rate (RF) is negative .
- Uric acid level may be elevated, especially with pustular and erythrodermic psoriasis.
- Fluid from pustules is sterile with neutrophilic infiltrate.
- Fungal studies may show infection.

Various other tests may be ordered to identify psoriasis. A biopsy of the skin lesion may show basal cell hyperplasia, absence of normal cell maturation, and keratinization. A considerable number of activated T cells are found in the epidermis. Joint x-rays can hasten the diagnosis of psoriatic arthritis. Bone scans are used for the early recognition of joint involvement (Habashy, 2021).

Treatment

Treatment of psoriasis is individualized to each patient. The goals of treatment are to relieve pain, remove scales, reduce swelling, maintain joint functioning, and prevent additional damage to joints (National Psoriasis Foundation, n.d.).

Topicals. Topical medications are typically the first treatment recommended to someone who is newly diagnosed. Topical medications can be purchased over the counter or by prescription (National Psoriasis Foundation, n.d.).

The following is a summary of topical therapy medications (Comerford & Durkin, 2021; Mayo Clinic, 2020c; National Psoriasis Foundation, n.d.):

- **Corticosteroids**: Topical steroids are one of the most common topical treatments for psoriasis. They come in a variety of ranges from very strong to very weak. Corticosteroids are available as ointments, creams, lotions, gels, foams, sprays, and shampoos. Topical corticosteroids are typically applied once daily during exacerbations and on alternate days or weekends to maintain remission. Mild corticosteroid ointments (e.g., hydrocortisone) may be purchased over the counter. However, prescription creams or ointments may be needed. Examples of prescription corticosteroids include triamcinolone (Trianex) and clobetasol (Clobex).

Nursing consideration: Patients should be advised to apply only a small amount of the steroid on affected areas only; not to use a topical steroid for longer than 3 weeks without the approval of healthcare providers; not to abruptly discontinue a topical steroid because it may cause a psoriasis exacerbation; avoid using steroids in or around the eyes unless the medication is specifically for the eyes; know that the more potent the steroid, the more effective it is, but the risk of side effects is greater (National Psoriasis Foundation, n.d.).

- **Vitamin D analogues**: Synthetic forms of vitamin D are prescribed to slow skin cell growth.
- **Calcineurin inhibitors**: Calcineurin inhibitors (e.g., tacrolimus [Protopic]) reduce both inflammation and plaque build-up. These medications are particularly useful in treating delicate areas of thin skin such as around the eyes.
- **Coal tar**: Coal tar is given to reduce scaling, itching, and inflammation. It comes in over-the-counter and prescription formats such as shampoo, cream, and oil. Unfortunately, these products can cause skin irritation, stain clothing and bedding, and have a strong odor. Coal tar is contraindicated for pregnant women and for those who are breastfeeding.
- **Goeckerman therapy**: This is a combination of coal tar treatment and phototherapy (light therapy). This combined treatment is more effective than either of them alone.

Phototherapy. There are various types of phototherapies (light therapy) used in the treatment of psoriasis. The following list provides descriptions of some of the types of phototherapies used in the treatment of psoriasis:

- **Sunlight**: Brief, daily exposures to sunlight (heliotherapy) might improve psoriasis, but precautions should be taken. Before beginning treatment with sunlight, healthcare providers should be consulted about the most effective and the safest way to expose skin to the sun (Mayo Clinic, 2020c).
- **UVB phototherapy**: This treatment involves exposing affected skin to an artificial UVB light source for an established length of time or a regular basis. UVB phototherapy can be administered in the healthcare provider's office, outpatient clinic, or at home with a phototherapy unit (National Psoriasis Foundation, n.d.).
- **Psoralen plus ultraviolet A (PUVA)**: PUVA treatment involves taking a light-sensitizing medication (psoralen) before exposure to UVA light. This light penetrates deeper into the skin than does UVB light. Psoralen increases the skin's response to UVA exposure (Mayo Clinic, 2020c).
- **Excimer laser**: With this type of phototherapy, a strong UVB light specifically targets only the affected skin. Excimer laser therapy requires fewer treatment sessions than traditional phototherapy because a more powerful UVB light is used (Mayo Clinic, 2020c).

Oral or Injected Medications. If the patient has moderate to severe psoriasis that has not responded to other treatments, oral or injected medications may be prescribed. Severe side effects may occur, so these medications are only used for brief periods of time and might be alternated with other forms of treatment (Mayo Clinic, 2020c).

Oral and injected medications include the following (Comerford & Durkin, 2021; Mayo Clinic, 2020c; National Psoriasis Foundation, n.d.):

- **Steroids**: A few small and persistent psoriasis patches may be treated with a steroid injection directly into lesions.
- **Retinoids**: Retinoids are oral medications given to decrease skin cell production. These types of drugs are not recommended for females or for those who are breastfeeding.
- **Methotrexate**: Methotrexate is typically administered as a single oral dose. This drug works by decreasing skin cell production and suppressing inflammation. Both men and women should stop taking methotrexate at least 3 months before trying to conceive.
- **Biologics**: Biologics such as infliximab (Remicade) are used for patients who have moderate to severe psoriasis and have not responded to first-line therapies. They are usually given by injection. It is important that biologics be administered with caution. They may suppress the immune system to the point that increases the risk of serious infections. Patients must be screened for tuberculosis. Biologics are expensive and may or may not be covered by health insurance.

Alternative/Complementary Interventions. Several alternative therapies may be used to ease psoriasis signs and symptoms. None have been proved to be effective by scientific research, but they are generally safe and may reduce symptoms in patients with mild to moderate psoriasis (Mayo Clinic, 2020c).

Examples of alternative therapies include the following (Mayo Clinic, 2020c):

- **Aloes extract cream**: This cream may reduce redness, inflammation, scaling, and itching. Aloe extract cream is typically applied several times a day. Patients should know that it may take a month or more to notice improvement.
- **Fish oil supplements**: Fish oil supplements used in conjunction with UVB therapy may reduce the amount of skin that is affected. Typically, fish oil is applied to the affected skin and covered with a dressing for 6 hours a day for 4 weeks.
- **Essential oils**: Essential oils used for aromatherapy (e.g., lavender) have been associated with stress and anxiety reduction.

Nursing consideration: Patients must be cautioned that before adding alternative therapies to their treatment regimens they must consult with their healthcare providers.

Nursing Interventions

Nursing interventions include, as always, patient/family education regarding medication and other aspects of the treatment regimen. Nurses should assess the patients' support network. It is important that they have the support of family and friends (Rebar et al., 2019).

Patients also need to know that self-care measures are available. With the approval of the healthcare providers, nurses can explain the value of the following lifestyle and home remedies (Mayo Clinic, 2020c):

- **Daily baths**: Daily baths help to remove scales as well as calm inflamed skin. Bath oil, colloidal oatmeal, and Epsom salts can be added to the water, and patients should soak in this water for at least 15 minutes. Lukewarm water and mild soaps that have additional oils and fats are recommended.
- **Moisturizers**: After gently patting nearly dry, a heavy ointment-based moisturizer should be applied when the skin is still moist. If moisturizing has positive results, a moisturizer may be applied one to three times a day.
- **Overnight coverage**: An ointment-based moisturize should be applied to the affected skin and wrapped with plastic wrap before going to bed. Upon awakening, the plastic wrap is removed and scales are washed away.
- **Medicated ointments**: To reduce itching and inflammation, over-the-counter hydrocortisone creams may be applied to the affected skin.
- **Triggers**: Patients should identify personal triggers and make plans to avoid them. Infections, stress, and smoking can exacerbate signs and symptoms.
- **Alcohol**: Alcohol may interfere with the effectiveness of treatment regimens. Alcohol should be avoided.

Self-Assessment Question 7

A nurse is conducting a patient/family education session for a patient recently diagnosed with psoriasis. The topic of discussion is medication. Which of the following statements would be appropriate to tell the patient and family?

a. Vitamin D Analogues are prescribed to decrease itching.
b. Coal tar is contraindicated for pregnant women.
c. Biologics are prescribed for patients with mild psoriasis.
d. Methotrexate is typically administered daily for 6 weeks.

Rheumatoid arthritis (RA)

Rheumatoid arthritis is a chronic, systemic, inflammatory disorder that usually affects the joints, the cervical spine, and surrounding muscles, tendons, ligaments, and blood vessels (Rebar et al., 2019). In some people RA can damage a number of body systems, including the skin, eyes, lungs, heart, and blood vessels (Mayo Clinic, 2021b).

The annual incidence of RA on a global scale is about three cases per 10,000 population. The prevalence rate is about one percent. Prevalence increases with age, peaking between the ages of 35 and 50 years.

RA affects all populations but is thought to be more prevalent in some groups (e.g., Native Americans) and less prevalent in others (e.g., dark-skinned persons from the Caribbean region; Smith, 2021b).

In the US, various types of arthritis are quite prevalent. Osteoarthritis is the most common form of arthritis. Gout, fibromyalgia, and RA are other common rheumatic conditions in the US (CDC, 2021b).

The CDC (2021b) has compiled and published the following arthritis related statistics:

- From 2013-2015, an estimated 58.5 million US adults (22.7%) annually had ever been told by a doctor that they had some form of arthritis.
- Prevalence by age: From 2013 to 2015 in the US:
  - Of people aged 18 to 44 years, 7.1% ever reported doctor-diagnosed arthritis.
  - Of people aged 45 to 64 years, 29.3% ever reported doctor-diagnosed arthritis.
  - Of people aged 65 years or older, 49.6% ever reported doctor-diagnosed arthritis.
- From 2013 to 2015 in the US, 26% of women and 19.1% of men ever reported doctor-diagnosed arthritis.
- Adults aged 18 years or older who are overweight or obese report doctor-diagnosed arthritis more often than adults with a lower body mass index (BMI).
- More than 16% of under/normal weight adults report doctor-diagnosed arthritis.
- Almost 23% of overweight and 31% of obese US adults report doctor-diagnosed arthritis.
- In 2015, 15 million adults reported severe joint pain because of arthritis.
- Arthritis and other rheumatic conditions are a leading cause of work disability among US adults.
- One in 25 working-age adults aged 18 to 64 years face work limitations they attribute to arthritis.
- Arthritis limits the activities of 23.7 million US adults.
- Adults with arthritis were about 2.5 times more likely to have two or more falls and suffer a fall injury in the past 12 months compared with adults without arthritis.
- In 2013, the national costs of arthritis were $304 billion.

Regarding RA statistics in the US, it is estimated that RA affects between 1.28 and 1.36 million Americans. Women are affected more often than men, and its peak onset is highest in people in their sixties (Rebar et al., 2019).

Pathophysiology

Pathogenesis. The pathogenesis of RA is not completely understood, but infections, genetics, and endocrine factors may influence its development (Rebar et al., 2019). An external trigger such as cigarette smoking, infection, or trauma may set off an autoimmune reaction, which leads to synovial hypertrophy and chronic joint inflammation. There is also potential for extra-articular manifestations to develop in individuals who are genetically susceptible (Smith, 2021a). Susceptible people may develop abnormal or altered IgG antibodies. The person's immune system does not recognize these antibodies as "self" and forms an antibody (the rheumatoid factor) against the person's own antibodies.

The rheumatoid factor causes inflammation, which leads to cartilage damage (Rebar et al., 2019).

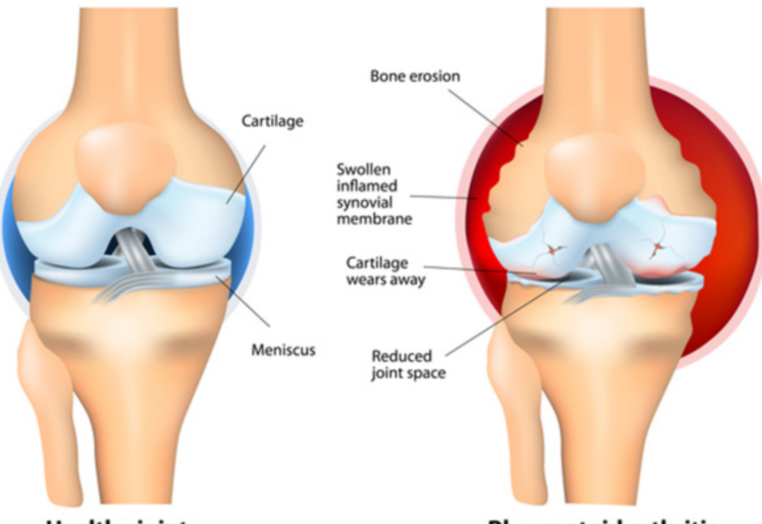
Joint inflammation occurs in four stages (Rebar et al., 2019; Smith, 2021a):

- **Phase 1**: Interaction occurs between genetic and environmental risk factors of RA. Initial inflammation in the joint capsule occurs in conjunction with swelling of the synovial tissue. This causes joint pain, swelling, and stiffness.
- **Phase 2**: RA antibodies are produced. Pannus (thickened layers of granulation tissue) covers and invades cartilage, eventually destroying the joint capsule and bone.

- **Phase 3**: This stage is characterized by arthralgia (joint stiffness), fibrous ankylosis, bone atrophy, and misalignment that causes visible deformities.
- **Phase 4**: This stage is characterized by fibrous tissue calcification, which leads to bony ankylosis (joint fixation). Pain, restricted joint movement, soft-tissue contractures, and joint deformities are evident.

Figure 7 shows the joint damage caused by RA.

Figure 7. Rheumatoid Arthritis



Note. From National Library of Medicine U.S., 2013.

Etiology. The exact cause of RA is not known. However, experts propose that genetic, environmental, hormonal, immunologic, and infectious factors may contribute to its development (Smith, 2021a).

The following descriptions show how contributing factors may contribute to RA development (Smith, 2021a):

- **Genetics**: Genetic factors account for 50% of the risk of developing RA. Various genes are thought to contribute to the development of RA.
- **Infectious agents**: Various infectious pathogens have been suggested to be possible causes of RA. These include the rubella virus and the Epstein-Barr virus (EBV). The proposal that infectious pathogens can be a cause of RA is supported by the following:
  - Reports of flulike illnesses before the start of RA.
  - The ability to produce RA in experimental animals using various bacteria.
  - The presence of bacterial products in patients' joints
- **Hormonal factors**: Sex hormones may play a part in the development of RA. Evidence to support this includes the disproportionate number of females with RA, improvement of signs and symptoms during pregnancy, and their recurrence after giving birth.
- **Lifestyle factors**: The main lifestyle contributory possible cause is the use of tobacco. Risk of developing RA is significantly higher in people who use tobacco.

Nursing consideration: Patients and families should be aware that in former smokers, the risk for RA may not return to the level of non-smokers for up to 20 years after ceasing to smoke (Smith, 2021a).

- **Immunologic factors**: The autoimmune response possibly triggers the formation of immune factors that activate the inflammatory process to a significantly greater degree than is normal.

Risk Factors. A number of risk factors are associated with the development of RA. These include the following (CDC, 2020a; Mayo Clinic, 2021b):

- **Sex**: New cases of RA are usually two to three times higher in women compared to men.
- **Age**: Although RA can begin at any age, occurrence increases with age. Onset of RA is highest among adults in their sixties.
- **Inherited traits**: People born with genes called human leukocyte antigen (HLA) class II genotypes are more likely to develop RA. These genes can also make RA worse. The risk may be highest when people with these genes are exposed to environmental factors such as tobacco use, or when the person is obese.
- **Smoking**: Tobacco use increases risk of developing RA and can also make the disease worse.
- **History of live births**: Women who have never given birth may be at greater risk for developing RA.
- **Exposures early in life**: Research suggests that some early life exposures may increase the risk of developing RA in adulthood. One study found that children whose mothers had smoked had twice the risk of developing RA as adults. Children of lower income parents also seem to be at increased risk of developing RA.
- **Obesity**: Research shows that the more overweight a person is, the greater the risk of developing RA.

Evidence-based practice! Research shows that women who have breastfed their infants have a decreased risk of developing RA (CDC, 2020a).

Self-Assessment Question 8

Which of the following people is most likely to develop RA?

a. A man in his sixties.
b. A woman who has given birth to three children.
c. A woman who smokes one pack of cigarettes per day.
d. A man who is underweight.

Complications. RA increases the risk of developing several complications. These include the following (Mayo Clinic, 2021b):

- **Osteoporosis**: RA and medications used to treat RA can increase the risk of osteoporosis.
- **Rheumatoid nodules**: These firm tissue nodules are usually found around pressure points. However, these nodules can form anywhere in the body, even in the heart and lungs.

- **Dry eyes and mouth**: RA increases the risk of developing Sjogren's syndrome, which is a disorder that decreases the amount of moisture in the eyes and mouth.
- **Infections**: RA and medications used in its treatment can impair the immune system, which leads to increased risk of infections. Patients are urged to get recommended vaccines such as influenza, pneumonia, shingles, and COVID-19.
- **Body composition**: The ratio of fat to lean body mass is often higher in people with RA. This is true even for persons who have a normal body mass index (BMI).
- **Carpal tunnel syndrome**: If RA affects the patient's wrists, the resulting inflammation can compress the nerves that serve the hands and fingers.
- **Cardiac issues**: RA increases the risk of atherosclerosis and arteriosclerosis. RA can also cause inflammation of the pericardium.
- **Lung disease**: People who have RA have an increased risk of inflammation and scarring of lung tissue. This can compromise respiratory status.
- **Lymphoma**: RA increases the risk of lymphoma.

Assessment and Diagnosis

Assessment. The primary characteristic of RA is persistent polyarthritis (synovitis) that affects any joint lined by a synovial membrane. In many patients, RA has an insidious onset (Smith, 2020a). Initially, patients may complain of non-specific symptoms that are seen in multiple disorders. These symptoms include fatigue, malaise, anorexia, low-grade fever, and weight loss. As the inflammatory process progresses, more specific symptoms develop (Rebar et al., 2019).

Nursing consideration: About 10% of patients with RA experience an abrupt onset with acute development of synovitis as well as extra-articular manifestations (Smith, 2021a).

During physical assessment patients are assessed for the following more specific signs and symptoms (Smith, 2020a):

- Stiffness.
- Tenderness.
- Pain with motion.
- Warmth of affected joints.
- Swelling.
- Deformity.
- Limitations of range-of-motion.
- Extra-articular manifestations.
- Rheumatoid nodules.
- Muscle atrophy.
- As joints and tendons are destroyed, deformities such as ulnar deviation, boutonniere deformation (the middle joint of the injured finger will not straighten, while the fingertip bends back), swan-neck deformity (flexion of the base of the finger, extension of the middle joint, and flexion of the outermost joint), hammer toe deformities (toe is bent at the middle joint, resembling a hammer), and, sometimes, joint ankylosis.

Symptoms usually occur bilaterally and symmetrically, typically involving fingers, wrists, elbows, knees, and ankles (Rebar et al., 2019). Many patients have muscle atrophy secondary to joint inflammation (Smith, 2021a).

Diagnostic Tests. No test specifically identifies RA. However, the following tests may be useful in making a diagnosis (Rebar et al., 2019):

- X-rays may show bone demineralization and soft tissue swelling.
- A rheumatoid factor is often positive in patients with RA. A positive test is indicated by a value of less than 60 units/ml.
- Analysis of synovial fluid shows an increase in volume and turbidity but decreased viscosity and complement levels. WBC count is often greater than 10,000/mm3.
- Serum protein electrophoresis may show an elevation in serum globulin levels.
- Erythrocyte sedimentation rate (ESR) is elevated in many patients with RA. The ESR helps in the monitoring of patients' response to therapy.

Treatment

There is no cure for RA. Research indicates that symptom remission is more likely when treatment begins early with disease-modifying antirheumatic drugs (DMARDs; Mayo Clinic, 2021b).

Medications. Medications are prescribed based on the severity of the symptoms and how long the patient has had RA. Medications include the following (Comerford & Durkin, 2021; Mayo Clinic, 2021b; Rebar et al., 2019):

- **Nonsteroidal anti-inflammatory drugs (NSAIDs)**: NSAIDs are administered to relieve pain and reduce inflammation. Over-the-counter options include ibuprofen (e.g., Advil) and naproxen sodium (Aleve). Stronger prescription NSAIDs such as celecoxib (Celebrex) may be given with caution. Side effects of prescription NSAIDs include stomach irritation, cardiac issues, and kidney damage.
- **Steroids**: Corticosteroids, such as prednisone, are taken to reduce inflammation and pain as well as to slow joint damage. Side effects of corticosteroids include osteoporosis, weight gain, and diabetes. Therefore, corticosteroids are typically given to quickly relieve symptoms and are gradually tapered off in an attempt to prevent or reduce side effects.
- **Conventional DMARDs**: DMARDs are taken to slow disease progression and to protect the joints and other body tissues from permanent damage. Examples of conventional DMARDs include methotrexate (Otexup), leflunomide (Arava), and hydroxychloroquine (Plaquenil). Side effects may include hepatic damage and severe respiratory infections.
- **Biologic agents**: Also known as biologic response modifiers, biologic agents are a new class of DMARDs. Examples include abatacept (Orencia), certolizumab (Cimzia), and rituximab (Rituxan).

Nursing consideration: Biologic DMARDs are typically most effective when paired with a conventional DMARD (Mayo Clinic, 2021b).

Targeted synthetic DMARDs: If conventional DMARDs and biologics are not effective, targeted synthetic DMARDs may be prescribed. An example is tofacitnib (Xeljanz).

Therapy. Physical and occupational therapies may be prescribed. In addition to keeping joints flexible, patients may be taught to use assistive devices that do not stress painful joints and make performing activities of daily living (ADLs) easier. For example, cutlery with hand grips make cooking and eating easier. Buttonhooks can help to make dressing easier (Mayo Clinic, 2021b).

Surgery. Various surgical procedures may be performed. These include the following (Mayo Clinic, 2021b; Rebar et al., 2019):

- **Synovectomy**: Synovectomy is the removal of the inflamed lining of joints (synovium). The goal of this surgery can help to reduce pain and improve flexibility of joints.
- **Tendon repair**: Inflammation and damage to the joints may cause tendons around the joints to rupture or loosen. Repair of the tendons may be possible with this type of procedure.
- **Joint fusion**: Joint fusion may be performed to stabilize or realign joints for the relief of pain. This procedure is generally performed when joint replacement is not an appropriate option.
- **Total joint Replacement**: This procedure involves the removal of damaged parts of joints and insertion of a prosthesis. Such prostheses are generally made of metal and plastic.

Nursing Interventions

Support for patients with a chronic, potentially disfiguring disease is critical. Nurses need to encourage patients to seek medical help as soon as possible, not only when symptoms first start, but if and when signs and symptoms change. Families must also be involved in and support healthcare visits (Rebar et al., 2019).

In conjunction with the primary healthcare provider and other members of the healthcare team, the following suggestions for symptom management may be provided by nurses (Mayo Clinic, 2020e):

- **Exercise**: Staying physically active is essential to strengthening muscles and keeping joints flexible. Physical therapists may be consulted for the recommendation of specific exercises. No exercise program should be initiated without the knowledge and consent of the primary healthcare provider.
- **Heat or cold therapy**: Warm baths, showers, and heating pads can help to ease pain and joint stiffness. In the event of periods of symptom exacerbation, cold packs rather than heat are recommended to reduce pain and inflammation.
- **Joint support**: Splints are typically used for joint support. Occupational and physical therapists can recommend the splint that is best suited to individual patient needs.
- **Self-help devices**: Several self-help devices may be used to facilitate movement and reduce joint stress. Examples include hand grips, long-handled shoehorns, and raised toilet seats.
- **Healthy lifestyle**: Patients should be encouraged to get enough rest and sleep, avoid tobacco products, adhere to medication regimens, and eat a healthy diet.

Scleroderma

Scleroderma is an autoimmune connective tissue and rheumatic disease. It is characterized by inflammation in the skin leading to patches of tight, hard skin. Scleroderma develops as the result of overproduction and accumulation of collagen in body tissues (Mayo Clinic, 2019). Scleroderma is not contagious, infectious, cancerous, or malignant (Scleroderma Foundation, 2021). Scleroderma can involve multiple body systems or just one area of the body (National Institute of Arthritis and Musculoskeletal and Skin Diseases, 2020).

When scleroderma affects multiple body systems it is referred to as systemic scleroderma (National Institute of Arthritis and Musculoskeletal and Skin Diseases, 2020)..

The estimated incidence of systemic scleroderma in the US is 20 cases per million population. Its prevalence is estimated at 276 cases per million population. Incidence and prevalence of systemic scleroderma in the US has been increasing in the last 50 years (Jimenez, 2020).

Systemic scleroderma is not particularly common. An estimated 75,000 to 100,000 people in the US have the disease. Most patients are women between the ages of 30 and 50 (American College of Rheumatology, 2019). Localized scleroderma is more common in children. Systemic scleroderma is more common in adults. However, scleroderma can develop in every age group from infants to older adults (Scleroderma Foundation, 2021).

Pathophysiology

There are two major classifications of scleroderma: localized scleroderma and systemic sclerosis (SSc). Each classification has its own characteristics and prognosis (Scleroderma Foundation, 2021).

Localized Scleroderma. The changes associated with localized scleroderma are found in only a few places on the skin or muscles. It rarely spreads elsewhere in the body. Usually, localized scleroderma is rather mild (Scleroderma Foundation, 2021).

There are two forms of localized scleroderma: morphea and linear scleroderma (Scleroderma Foundation, 2021).

Morphea. Morphea is characterized by waxy patches on the skin that vary in size, shape, and color. These patches may grow or shrink and may even disappear spontaneously. Skin underneath patches may thicken. Morphea typically develops between the ages of 20 and 50 but is often found in young children (Scleroderma Foundation, 2021).

Linear Scleroderma. This form of localized scleroderma often starts as a streak of hardened, waxy skin. It typically appears on the arm, leg, or forehead. It may form as a long crease on the head or neck that resembles a wound caused by a sword. Linear scleroderma usually involves the deeper layers of the skin as well as the surface layers of the skin. Linear scleroderma typically develops in childhood, and growth of affected limbs may be affected (Scleroderma Foundation, 2021).

Systemic Scleroderma (Systemic Sclerosis). Systemic scleroderma is characterized by changes in connective tissue that occur in many parts of the body. Systemic sclerosis can involve the skin, esophagus, gastrointestinal tract, lungs, kidneys, heart, and other internal organs. The disease can also affect blood vessels, muscles, and joints (Scleroderma Foundation, 2021). Affected tissues become hard and fibrous, leading to functional impairment. There are two major patterns that systemic scleroderma can take-- diffuse or limited patterns (Scleroderma Foundation, 2021).

- **Diffuse scleroderma**: In diffuse scleroderma thickening of the skin occurs at a rapid rate and involves more areas of the skin than the limited disease. People with diffuse scleroderma are at higher risk of developing sclerosis or fibrous hardening of the internal organs.
- **Limited scleroderma**: Limited scleroderma affects about 50% of persons who have scleroderma. It progresses more slowly and is a more benign illness than diffuse scleroderma. Internal issues may evolve, but they are typically less frequent and less severe compared to diffuse scleroderma. However, patients with limited scleroderma can develop pulmonary hypertension, which causes a narrowing of the blood vessels of the lungs, impaired blood flow to the lungs, and shortness of breath.

Risk Factors. Several factors may influence the risk of developing scleroderma. These include the following (Mayo Clinic, 2019):

- **Genetics**: It is possible that gene variations may be a risk factor for the development of scleroderma. A small number of cases of scleroderma seem to run in families. The disease also appears more often in certain ethnic groups. For example, Choctaw Native Americans are more likely to develop scleroderma that affects the internal organs of the body.
- **Environmental triggers**: Research findings indicate that scleroderma symptoms may be triggered by exposure to some viruses, medications, or drugs. Work exposure to harmful chemicals may also increase the risk of scleroderma development.
- **Immune system issues**: As an autoimmune disease, the body's immune system negatively impacts its own connective tissues. In about 15% to 20% of cases, someone who has scleroderma also has symptoms of another autoimmune disease such as lupus or rheumatoid arthritis.

Complications. Scleroderma complications range from mild to severe. These include the following (Mayo Clinic, 2019):

- **Raynaud's Disease**: A form of Raynaud's disease sometimes occurs with systemic scleroderma. Raynaud's disease in these patients can be so severe that impaired blood flow permanently damages fingertip tissue, leading to pits and/or skin sores. In some patients, fingertip tissue may die and amputation may be necessary.
- **Lungs**: If lung tissue is scarred, respiratory function can be impaired, leading to respiratory distress and possible pulmonary hypertension.
- **Kidneys**: If kidneys are impacted by scleroderma, hypertension may occur as well as increased protein levels in the urine. Kidney damage may also cause renal crisis that involves rapid kidney failure.
- **Cardiac**: If the tissue of the heart is scarred, arrhythmias, congestive heart failure, and pericarditis may occur.
- **Teeth**: If scleroderma causes severe facial skin tightening, the mouth may become smaller and narrower. If this occurs, it may be difficult for patients to brush their teeth or have dental work. Frequently, patients do not produce adequate amounts of saliva, which increases the risk of tooth decay.

- **Gastrointestinal system**: Digestive issues may cause heartburn and dysphagia. Cramps, bloating, constipation, or diarrhea may also occur.
- **Sexual dysfunction**: Men may experience erectile dysfunction. In women, sexual lubrication may decrease and the vaginal opening may narrow.

Assessment and Diagnosis

A complete history and physical is conducted. Assessment of patients for various signs and symptoms are a critical part of the assessment and diagnostic process

Signs and symptoms may include the following (Mayo, 2019):

- **Skin changes**: Almost all patients with scleroderma have a hardening and tightening of patches of skin. Patches present as ovals, straight lines, or wide areas that may cover the trunk and limbs. Skin may also appear shiny because it is so tight. There may be restriction of movement of affected areas.
- **Fingers or toes**: Raynaud's disease is one of the earliest signs of systemic scleroderma. The small blood vessels of the fingers and toes contract when exposed to cold temperatures or when patients experience emotional distress. Fingers and toes may turn blue or become painful or numb.
- **Gastrointestinal system**: Symptoms depend on what part of the gastrointestinal system is affected. For example, an affected esophagus may lead to heartburn or dysphagia. If intestines are affected, cramping, bloating, diarrhea, and/or constipation may occur. There may be problems with absorption of nutrients if intestinal muscles fail to move food through the intestines in an efficient manner.
- **Body systems**: Scleroderma can affect any body organ or tissue. There may be heart, lungs, or kidney problems. If not treated, life-threatening complications may develop.

Diagnostic Tests. Some diagnostic tests may be ordered to aid in diagnosis. These may include the following (American College of Rheumatology, 2019):

- **X-rays and computerized tomography (CT) scans**: These tests are ordered to look for abnormalities in the body.
- **Thermography**: Thermography can detect differences in skin temperature between affected and non-affected tissue.
- **Ultrasound and magnetic resonance imaging (MRI)**: These tests can help in the assessment of soft tissue.

Treatment

Signs and symptoms vary according to the severity of the disease and the areas of the body that are affected.

Medications. Various medications may be administered. These include the following (Gardner, 2020; Mayo Clinic, 2019):

- **Steroidal creams or pills**: Steroid preparations are administered to reduce swelling, pain, and inflammation. Steroids may also loosen tight, stiff skin and slow the progression of new skin changes.
- **Nonsteroidal anti-inflammatory drugs (NSAIDs)**: NSAIDs are given to reduce pain and swelling.
- **Anti-hypertensive medications**: These medications help to dilate blood vessels and increase circulation. They may help in the prevention of lung and kidney issues and treat Raynaud's disease.
- **Acid reducers**: Medications (e.g., protein pump inhibitors) reduce gastric acid to help to relieve heartburn.
- **Immune system suppressants**: Medications given to suppress the immune system (such as those taken after organ transplants) may help with symptom reductions.
- **Analgesics**: Analgesics are taken to reduce pain.
- **Gastrointestinal stimulants**: These drugs increase motility of the gastrointestinal muscle. They work to move the contents of the gastrointestinal tract more rapidly without acting as a purgative.

Therapies. Physical and occupational therapies may be ordered. These therapies are designed to help patients manage pain, improve their strength and mobility, and maintain independence with ADLs (Mayo Clinic, 2019).

Surgery. Surgery is typically considered to be a last resort to use for severe scleroderma complications. Amputation may be necessary if Raynaud's disease has progressed to the point of tissue death. Lung transplants may be indicated for patients with severe respiratory system issues (Mayo Clinic, 2019).

Nursing Interventions

In addition to typical patient/family education initiatives such as medication education, nurses are also viewed as healthcare professionals who provide much-needed emotional support. A chronic disease with potentially serious complications leads to stress and anxiety. Patients and families may benefit from joining support groups and obtaining mental health counseling (American College of Rheumatology, 2019; Rebar et al., 2019).

Nurses should be instrumental in helping patients to lead a healthy lifestyle. Patients are encouraged to (Mayo Clinic, 2019):

- **Stay active**: Exercise helps to maintain flexibility, improve circulation, and relieve stiffness. Patients should be taught to perform self-range-of-motion exercises to help keep skin and joints flexible. Before starting an exercise program, the primary healthcare provider should be consulted.
- **Protect their skin**: Patients should avoid hot baths and showers and avoid using strong soaps, which can dry out the skin and cause further damage. Sunscreen should be used to protect the skin as well.
- **Avoid tobacco products**: Nicotine causes blood vessel contraction, which can worsen Raynaud's disease. Smoking can also cause permanent narrowing of blood vessels and lead to or exacerbate lung issues.
- **Manage heartburn**: Patients should avoid spicy foods and beverages. They should be taught to identify and avoid other foods and beverages that trigger heartburn. Late night meals should be avoided as well. Sleeping with the head of the bed elevated helps to prevent gastric acid from backing up into the esophagus. Antacids or protein pump inhibitors may be suggested to relieve symptoms of heartburn.
- **Protect from cold**: Mittens should be worn anytime hands are exposed to cold, even when reaching into a freezer. If outside in cold weather several layers of warm clothing are recommended, and the face and head should be covered as much as possible.

Self-Assessment Question 9

A form of scleroderma that affects 50% of persons with the disease and is a more benign form of scleroderma is:

a. Morphea.
b. Linear scleroderma.
c. Diffuse scleroderma.
d. Limited scleroderma.

Ulcerative colitis

Ulcerative colitis is a chronic inflammatory bowel disease (IBD). An autoimmune disease, ulcerative colitis causes inflammation and ulcerations of the mucosa in the colon. Ulcerative colitis affects the innermost lining of the colon and rectum (Mayo Clinic, 2021d; National Institute of Diabetes and Digestive and Kidney Diseases [NIDDK], n.d.; Rebar et al., 2019).

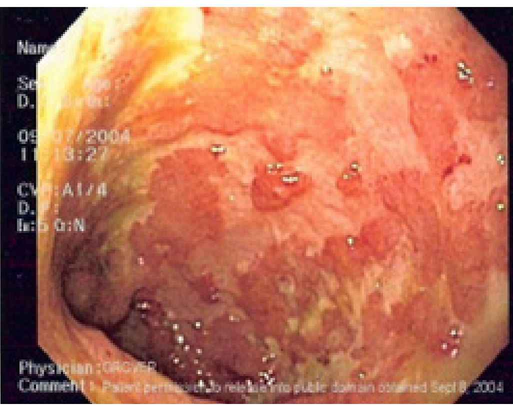
Ulcerative colitis can develop at any age, but peak occurrence is between the ages of 15 and 30 and between 50 and 70. The disease is slightly more prevalent in men compared to women. An estimated 238 per 100,000 adults in the US may have ulcerative colitis (Rebar et al., 2019).

Pathophysiology

The exact cause of ulcerative colitis is not known but is likely linked to an abnormal immune response in the gastrointestinal tract (Rebar et al., 2019). Ulcerative colitis typically begins in the rectum, where it may remain localized (ulcerative proctitis) or extend proximally, progressing to involve the entire colon. Inflammation affects the mucosa and submucosa. There is a distinct border between normal and affected tissue (Merck Manual, 2020c). Figure 8 shows a picture of damage that occurs as the result of the disease.

Nursing consideration: Stress does not cause ulcerative colitis. However, stress can increase the severity of the attack (Rebar et al., 2019). Patients should take steps to reduce stress whenever possible.

Figure 8 Ulcerative Colitis



Note. Wikimedia Commons., 2006.

Early in the course of the disease, the mucous membrane is erythematous and finely granular. There is a loss of normal vascular pattern often accompanied by scattered hemorrhagic areas. Severe disease is characterized by large mucosal ulcers with copious purulent exudate. Fistulas and abscesses do not occur (Merck Manual, 2020c).

A summary of the disease progression is as follows (Rebar et al., 2019):

- The disease typically originates in the rectum. It may progress to involve the entire colon.
- The colon's mucosa develops diffuse ulceration with hemorrhage, congestion, edema, and exudative inflammation.
- Large mucosal ulcers form and drain purulent pus and become necrotic.
- Sloughing of the mucosa occurs, leading to bloody, mucous-filled stools.

Progression of the disease may cause intestinal obstruction, dehydration, and significant fluid and electrolyte imbalances. Malabsorption is common and anemia may develop because of blood loss in the stools (Rebar et al., 2019).

Ulcerative colitis is often classified according to its location. Types of ulcerative colitis include the following (Mayo Clinic, 2021d):

- **Ulcerative proctitis:** Inflammation is confined to the area that is closest to the anus. Rectal bleeding may be the only sign of the disease.
- **Proctosigmoiditis**: Inflammation involves the rectum and sigmoid colon. Bloody diarrhea, abdominal cramps and pain, and constipation are signs and symptoms of proctosigmoiditis.
- **Left-sided colitis**: Inflammation extends from the rectum through the sigmoid and descending colon. Signs and symptoms include bloody diarrhea, abdominal cramping and pain on the left side, and an urgent need to defecate.
- **Pancolitis**: The entire colon is affected, causing bloody diarrhea that may be severe, abdominal cramping and pain, fatigue, and weight loss.

Risk Factors. There are several risk factors associated with the development of ulcerative colitis. These include the following (Mayo Clinic, 2021d):

- **Age**: Ulcerative colitis typically begins before the age of 30. However, it can occur at any stage in life. Some patients may not develop the disease until after the age of 60.
- **Race or ethnicity**: Whites develop the disease most often, although it can occur in any race or ethnicity. The risk is even higher if someone is of Ashkenazi Jewish descent.
- **Family history/Gemetocs**: Risk increases if a parent, sibling, or child has the disease.

Complications. Complications that may occur with ulcerative colitis. These include the following (Mayo Clinic, 2021d):

- Hemorrhage.
- Perforated colon.
- Severe dehydration.
- Osteoporosis.
- Skin, joint, and eye inflammation.
- An increase in the risk for colon cancer.
- Toxic megacolon.
- Increased risk of blood clots.

Assessment and Diagnosis

In order to diagnose ulcerative colitis, a complete history and physical is performed, family history obtained, symptoms reviewed, and some diagnostic tests ordered (NIDDK, n.d.).

Signs and Symptoms. Patients are assessed for the following symptoms, which vary depending on the severity of the disease and its location. Signs and symptoms may include the following (Mayo Clinic, 2021d):

- Diarrhea, often containing blood or pus.
- Abdominal pain and cramping.
- Rectal pain.
- Rectal bleeding.
- Urgency with defecation.
- Unable to defecate despite urgency feelings.
- Weight loss.
- Malaise.
- Fever.
- In children, failure to grow.

Most people with ulcerative colitis have mild to moderate symptoms. Additionally, the course of the disease may vary from person-to-person, and some patients have long periods of remission (Mayo Clinic, 2021d).

Diagnostic Tests. Stool cultures for enteric pathogens should be done to identify a pathogenic cause of the disease. In women who are using oral contraceptives, contraception-induced colitis is possible. This type of ulcerative colitis usually resolves spontaneously after hormone therapy is stopped (Merck Manual, 2020c).

Additional diagnostic tests include the following (Mayo Clinic, 2021d; Merck Manual, 2020c):

- **Flexible sigmoidoscopy**: Flexible sigmoidoscopy is used to visually confirm the diagnosis and allows direct sampling of stool or mucous for culture and microscopic evaluation. If the sigmoid colon is severely inflamed, a flexible sigmoidoscopy may be performed instead of a full colonoscopy.
- **Colonoscopy**: Colonoscopy allows visualization of the entire colon. Tissue samples are obtained for laboratory analysis, which is necessary to make an accurate diagnosis.
- **X-rays**: If patients have severe symptoms an X-ray of the abdominal area can help to rule out serious complications, such as a perforated colon.
- **CT scan**: A CT scan is typically used if complications are suspected. It can also show how much of the colon is inflamed.
- **Computerized tomography (CT) enterography and magnetic resonance imagery (MRI)**: These non-invasive tests may be performed to exclude inflammation of the small intestine.

Treatment

Treatment goals are to control inflammation, replace lost nutrients and blood, and prevent complications. General supportive initiatives include bed rest, IV fluid replacement, and, if needed, blood transfusions (Rebar et al., 2019).

Medications. Several classifications of drugs are used in the treatment of ulcerative colitis. Medications prescribed depend on the severity of the disease and need to be individualized to each patient (Mayo Clinic, 2021d; Rebar et al., 2019). Drugs include the following:

- **Corticosteroids**: Corticosteroids such as prednisone are used to control inflammation when the patient does not

respond to other treatments. They are usually used in patients who have moderate to severe ulcerative colitis. Corticosteroids are not given long-term and must be tapered off, not abruptly discontinued.

- **Aminosalicylates**: These medications (e.g., mesalamine [Asacol]) are taken to reduce inflammation.
- **Anti-diarrheal medications**: These are prescribed for patients who have frequent, troublesome diarrhea and whose ulcerative colitis is otherwise under control.
- **Immune system suppressors**: In addition to reducing inflammation, immune system suppressors suppress the immune response that initiates the inflammation process.
- **Iron supplements**: Iron supplements are given to correct anemia.
- **Biologics**: Biologics target proteins manufactured by the immune system. These drugs (e.g., infliximab [Remicade]) help to heal the intestinal lining and, hopefully, to induce remission.
- **Antispasmodics**: Antispasmodics are given to help reduce cramping.
- **Pain relievers**: For mild pain, acetaminophen (Tylenol) may be taken. However, ibuprofen (e.g., Advil, Motrin) is contraindicated since it can exacerbate symptoms and increase disease severity.

Diet. Patients may find that limiting or eliminating dairy products may help to improve issues such as diarrhea. Patients affected by severe disease may need total parenteral nutrition (TPN) and to take nothing by mouth. Patients with moderate disease may benefit from supplemental drinks. A low-residue diet may be ordered for patients who have mild disease (Rebar et al., 2019).

Surgery. If massive dilation of the colon (toxic megacolon) occurs, surgery may be indicated. The most common surgical procedure is proctocolectomy with colostomy or ileostomy (Rebar et al., 2019).

Nursing Interventions

In addition to facilitating adherence to treatment regimens, nurses need to help patients modify their lifestyles to help reduce symptoms and increase quality of life. Diet modifications may be of significant help. Keeping a food diary is recommended. Patients should keep track of what they eat and how they feel after eating. By doing this, patients may be able to identify what foods exacerbate their symptoms and learn to avoid them (Mayo Clinic, 2021d).

Rather than eating two or three large meals, eating five or six small meals a day may help to reduce symptoms. Patients should also be encouraged to drink plenty of fluids. Water is the beverage of choice. Alcohol and beverages containing caffeine stimulate the intestines, which can exacerbate diarrhea. Carbonated drinks may cause flatulence and increase cramping (Mayo Clinic, 2021d; Rebar et al., 2019).

Stress reduction is important. Stress can worsen symptoms and trigger disease flare-ups. To help control stress patients may find the following interventions helpful (Mayo Clinic, 2019d):

- **Exercise**: Exercise can help to reduce stress, relieve depression, and restore some normalcy to bowel functioning. Patients should consult their healthcare providers before beginning exercise programs.
- **Biofeedback**: Biofeedback helps to reduce muscle tension and reduce heart rate. The goal of biofeedback is to achieve a relaxed state so that stress is reduced.
- **Relaxation and breathing exercises**: Relaxation breathing, yoga, and meditation may help to reduce stress and alleviate symptoms.

Vitiligo

Vitiligo is a painless autoimmune skin disorder that causes the skin to lose its color. It typically begins with a few small white patches that may gradually spread over the body over a period of several months (Cleveland Clinic, 2020). Vitiligo can affect the skin on any part of the body as well as the hair and the inside of the mouth (Mayo Clinic, 2020d).

Vitiligo occurs in about one percent of the world's population. The disease affects all races equally, but it is more visible in people whose skin is darker. Vitiligo affects men and women equally (Cleveland Clinic, 2020). Vitiligo is not life-threatening nor is it contagious. However, the obvious loss of pigment can be stressful and reduce self-esteem. It may even lead to patients being teased or bullied (Mayo Clinic, 2020d).

Vitiligo can develop at any age. It appears most often in people 10 to 30 years of age. The disease seldom appears in the very young or the very old (Cleveland Clinic, 2020).

Nursing consideration: Treatment may restore color to the affected skin in persons with vitiligo. However, it does not prevent continued loss of skin color or a recurrence of the disease (Mayo Clinic, 2020d).

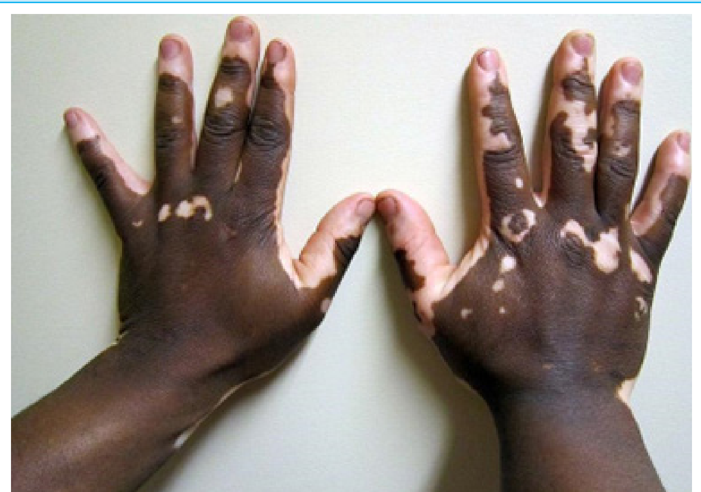
Pathophysiology

Vitiligo occurs when the body's melanocytes are destroyed by the body's immune system. Smooth white areas on the skin are called macules if less than 5 mm, or patches if they are larger than 5mm (Cleveland Clinic, 2020). There are several types of vitiligo that are classified by the extent and location of the pigment loss, as follows (Cleveland Clinic, 2020; Mayo Clinic, 2020d):

- **Universal vitiligo**: This type of vitiligo is characterized by a loss of color over nearly all (more than 80%) skin surfaces.
- **Generalized vitiligo**: This is the most common form of vitiligo. Generalized vitiligo is characterized by discolored patches (loss of pigmented skin) that generally progress symmetrically on corresponding body parts.
- **Segmental vitiligo**: Only one side or part of the body is affected. This type of vitiligo usually occurs at a younger age, progresses for a year or two, then stops.
- **Localized vitiligo**: Localized (focal) vitiligo affects one or only a few areas of the body.
- **Acrofacial vitiligo**: This form of vitiligo is characterized by a loss of pigment on the face and hands, and around body openings such as the eyes and nose.
- **Mucosal vitiligo**: Mucosal vitiligo affects mucous membranes of the mouth and/or the genitals.
- **Trichome vitiligo**: This type of vitiligo is characterized by a white or colorless center, an area of lighter pigmentation, and then an area of normally colored skin.

Predicting the progress of the disease is difficult. The patches may stop forming without treatment. In most people, pigment loss spreads, eventually involving most of the skin (Mayo Clinic, 2020d). Figure 9 shows how a loss of pigmentation looks.

Figure 9. Vitiligo



Note. Heilman, 2015.

Nursing consideration: Patients have varying amounts of skin affected by vitiligo. Some people have few depigmented areas, while others experience widespread loss of skin color (Cleveland Clinic, 2020).

Etiology. The exact cause of vitiligo is unknown. However, experts propose several theories about why it develops, including the following (Cleveland Clinic, 2020):

- **Autoimmunity**: Autoimmunity is the destruction of melanocytes by the body's immune system.
- **Genetics**: About 30% of vitiligo cases run in families.
- **Neurogenics**: A substance toxic to melanocytes may be released at nerve endings in the skin.
- **Self-sestruction**: A defect in the melanocytes causes them to self-destruct.

Complications. Because of the lack of melanocytes, affected skin is more sensitive to the sun's rays than normal skin and will burn easily instead of tan. People with vitiligo may have retinal abnormalities that cause inflammation of the retina or iris, but vision is typically not affected. Patients with vitiligo may be more likely to develop other autoimmune diseases. Finally, changes in appearance caused by vitiligo may cause embarrassment and anxiety. Patients may face bullying or rude questions. Such factors may lead to anxiety, excessive stress, and depression (Cleveland Clinic, 2020).

Assessment and Diagnosis

The disease is often recognized from its physical appearance. A history and physical is performed, and a skin biopsy may be taken to confirm diagnosis or to differentiate vitiligo from other skin conditions (Mayo Clinic, 2020d).

Healthcare providers will also assess presenting signs and symptoms to make a diagnosis. Signs include the following (Mayo Clinic, 2020d):

- Patchy loss of skin color that usually first appears on the hands, face, and areas around body openings and genitalia.
- Premature whitening or graying of hair on the scalp, eyelashes, eyebrows, or beard.
- Loss of color in the mucous membranes of the mouth.

Treatment

There is no cure for vitiligo. The goal of treatment is to create a uniform skin tone by either repigmentation or by eliminating remaining color (depigmentation). The goal can be achieved by the following methods:

- **Camouflage therapy**: This therapy involves using sunscreen with an SPF of 30 or higher. Use of sunscreens minimizes tanning, thus limiting the contrast between normal and affected skin. Makeup can help to camouflage depigmented areas. Hair dyes can be used if the disease affects the hair. Depigmentation therapy with the medication monobenzone can be used to treat extensive disease. The medication is applied to pigmented patches of skin to turn them white to match affected areas of skin (Cleveland Clinic, 2020).
- **Medications**: Corticosteroids can be used in oral or topical forms to promote repigmentation. It may take up to 3 months to show results. Topical vitamin D analogs may also be helpful. Topical immunomodulators may be useful for treating small areas of pigmentation. However, there may be a possible link between these kinds of drugs and lymphoma and skin cancer (Mayo Clinic, 2020d).
- **Light therapy**: Phototherapy with narrow band ultraviolet B may stop or slow progression of the disease. Effectiveness might be enhanced when used with corticosteroids or calcineurin inhibitors. Light therapy is administered two to three times a week. It may take 1 to 3 months before any change is noticed. However, there is a possible risk of skin cancer with the use of calcineurin inhibitors (Mayo Clinic, 2020d).
- **Depigmentation**: For widespread vitiligo that has not been treated successfully with other options, a depigmenting agent is applied to unaffected areas of skin. The skin is gradually lightened so that it blends with discolored areas. This type of therapy is done once or twice a day for 9 months or longer (Cleveland Clinic, 2020).

If medications and light therapy do not work, surgery may be performed. Possible procedures include the following (Mayo Clinic, 2020d):

- **Skin grafting**: Small sections of healthy, pigmented skin are grafted to affected areas. Risks include infection, scarring, a cobblestone appearance, spotty color, and failure of the area to recover.
- **Blister grafting**: Blisters are creating on pigmented skin and then the tops of the blisters are transplanted to affected areas. Risks include scarring, a cobblestone appearance, and failure of the area to recover.
- **Cellular suspension transplant**: Tissue is taken from pigmented skin, cells from the skin are placed into solution, and then are transplanted onto affected areas. Results start to show within 4 weeks.

Self-Assessment Question 10

A nurse is providing education to a patient newly diagnosed with vitiligo. The nurse should tell the patient that:

a. Vitiligo often causes mild to moderate pain.
b. Vitiligo appears most often in people over 65 years of age.
c. The most common form of vitiligo is universal vitiligo.
d. Corticosteroids are used to promote repigmentation.

Nursing Interventions

Nurses need to teach patients and families about lifestyle modifications and home remedies. These include the following (Mayo Clinic, 2020d):

- Skin must be protected from the sun and artificial sources of UV light. A broad-spectrum, water-resistant sunscreen with an SPR of at least 30 is recommended.
- Makeup and self-tanning products can help to reduce differences in skin color. If a self-tanner is used, one should be chosen that contains the Food and Drug Administration (FDA) approved ingredient dihydroxyacetone.
- Patients should not get tattoos. Any skin damage may cause new patches of vitiligo to appear.
- Patients should seek emotional support in the form of family and friend support, vitiligo support groups, and/or professional counseling.

Conclusion

Autoimmune diseases can cause a wide range of effects from mild to serious and, in some cases, life-threatening. Nurses and other members of the healthcare team must work together to provide a coordinated approach to patient care and help patients attain the best possible outcomes. To do this, the healthcare team must keep abreast of the effects of autoimmune diseases, how to recognize them, and treatment advances.

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NURSING ASSESSMENT, MANAGEMENT AND TREATMENT OF AUTOIMMUNE DISEASES

Self-Assessment Answers and Rationales

1. The correct answer is B.
Rationale: An estimated four percent of the world's population is affected by one of more than 80 different autoimmune diseases. In the United States, autoimmune diseases are the third most common cause of chronic illness.

2. The correct answer is D.
Rationale: There are various grains and starches allowed on a gluten-free diet. These include buckwheat.

3. The correct answer is B.
Rationale: Ileocolitis is the most common type of Crohn's disease. It affects the terminal ileum and the colon.

4. The correct answer is A.
Rationale: The A1C is a blood test that reports average blood glucose levels for the past 2 to 3 months. However, certain conditions such as pregnancy or having a hemoglobin variant may interfere with the accuracy of the A1C test.

5. The correct answer is C.
Rationale: Hydroxychloroquine is antimalarial drug that has been prescribed to help keep lupus-related skin and joint disease under control. It has also been found to be effective in the treatment of fatigue and mouth sores.

6. The correct answer is A.
Rationale: Mitoxantrone is a chemotherapeutic drug that is used for patients experiencing worsening forms of relapsing MS and secondary progressive MS. It is given intravenously every 3 months. The potential for toxicity is high, so patients may receive a limited number of doses throughout the lifespan. Mitoxantrone is associated with cardiotoxicity.

7. The correct answer is B.
Rationale: Over-the-counter and prescription formats such as shampoo, cream, and oil, unfortunately, can cause skin irritation, stain clothing and bedding, and have a strong odor. Coal tar is contraindicated for pregnant women and for those who are breastfeeding.

8. The correct answer is C.
Rationale: Women are diagnosed with RA more frequently than men. Tobacco use is associated with a significant increase in risk for the development of RA.

9. The correct answer is D.
Rationale: Limited scleroderma affects about 50% of persons who have scleroderma. It progresses more slowly and is a more benign illness than diffuse scleroderma. Internal issues may evolve, but they are typically less frequent and less severe compared to diffuse scleroderma.

10. The correct answer is D.
Rationale: Corticosteroids can be used in oral or topical forms to promote repigmentation. It may take up to 3 months to show results.

NURSING ASSESSMENT, MANAGEMENT AND TREATMENT OF AUTOIMMUNE DISEASES

Final Examination Questions

Select the best answer for each question and mark your answers on the Final Examination Answer Sheet found on page 145 or complete your test online at **EliteLearning.com/Book**

81. When discussing autoimmune diseases nurses should know that:
    a. Autoimmune diseases cost $86 billion per year.
    b. Autoimmune diseases affect men twice as often as women.
    c. An estimated 10% of the world's population is affected by autoimmune disease.
    d. NIH has named autoimmunity a major men's health issue.

82. Some patients fail to respond to treatment for celiac disease even when adhering to a gluten-free diet. This is referred to as:
    a. Nonresponsive celiac disease.
    b. Pre-infiltrate disease.
    c. Refractor disease.
    d. Atrophic hypoplastic disease.

83. All of the following are dietary recommendations for patients with Crohn's disease EXCEPT:
    a. Avoid foods high in sugar when experiencing a flare of the disease.
    b. (correct) Use a straw to drink beverages.
    c. Eat four to six small meals daily rather than three large meals.
    d. Use simple methods to cook such as broiling and steaming.

84. An A1C level of ____ or higher on two separate tests is an indicator of T1D.
    a. 6.5%.
    b. 4.2%.
    c. 5.9%.
    d. 4.9%.

85. Laboratory test results that indicate lupus include:
    a. An elevated WBC count.
    b. Reduced urinary protein levels.
    c. Electrophoresis may show hypogammaglobulinema.
    d. Chest X-rays may show pleurisy.

86. Risk factors associated with MS include:
    a. Living in tropical climates.
    b. (correct) Being White.
    c. Being 60 years of age or older.
    d. Being male.

87. The type of psoriasis that typically affects children and young adults is:
    a. Nail psoriasis.
    b. Plaque psoriasis.
    c. Guttate psoriasis.
    d. Inverse psoriasis.

88. All of the following are complications of Rheumatoid Arthritis EXCEPT:
    a. Osteoporosis.
    b. Rheumatoid nodules.
    c. Dry eyes and mouth.
    d. (correct) Melanoma.

89. Surgery for patients with scleroderma:
    a. Is contraindicated.
    b. (correct) Is Performed if Raynaud's disease has caused tissue death.
    c. Includes heart transplantation for severe cardiac disease.
    d. Is a first-line treatment.

90. When teaching patients about treatment for vitiligo the nurse should explain that:
    a. One light therapy treatment is generally all that is needed.
    b. First-line treatment is depigmentation.
    c. Corticosteroid therapy may take up to 3 months to show results.
    d. Cellular suspension transplant involves grafting healthy skin onto affected skin.

Course Code: ANCCFL06AD

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Florida Nursing Professionals CE Correspondence Package
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Using the spaces provided below, please PRINT the information in CAPITAL LETTERS. All information below must be filled in completely to ensure the state of Florida receives your completion data correctly. Upon completion, please return this sheet, along with payment to the address above. If paying by check or money order, please make payable to Elite for $32.95. For faster service, we offer this test online with instant grading and certificate issuance. Please visit **EliteLearning.com/Book** to complete your test online.

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Zip Code | Telephone Number (Please include area code) | Florida Nursing License # (starts with two letters: RN or PN)

Use the space to the right if you have an ARNP number: ____________

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Final examination questions are located at the end of each chapter.

Questions 1–90: A B C D (answer circles)

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ANCCFL2623B 3411482070

Test Expiration Date: 11/24/2023
1.ANCCFL02DV22 [1-10] 2.ANCCFL02RG [11-20] 3.ANCCFL02FT [21-30] 4.ANCCFL02PF [31-40]
5.ANCCFL02NI [41-50] 6.ANCCFL06PC [51-60] 7.ANCCFL03CR [61-70] 8.ANCCFL01AF [71-80] 9.ANCCFL06AD [81-90]

NURSING - COURSE EVALUATION (ANCCFL2623B - Required)

To receive continuing education credits for this program, this mandatory evaluation form must be completed.

Licensee Name: ____________________ **License #**____________________

Your honest feedback is vital for the planning, evaluation, and design of future educational programs.

SECTION I: Demographics: Your current license type and education level: ❍LPN/LVN ❍RN - Associate degree ❍RN - Bachelor's degree ❍RN - Master's degree ❍APRN - Master's degree ❍Doctorate / DNP / Other Doctorate ❍Other (specify)____________________

How long have your been a nurse: ❍Less than 5 years ❍6 to 10 years ❍11 to 15 years ❍16 to 20 years ❍Over 20 years ❍Not a nurse

SECTION II: Course Evaluation
Please complete the following for each course you have completed. Mark the circle that best matches your evaluation of the question.

1. After completing this course, I am able to meet each of the Learning Outcomes.	7. The course demonstrated the author's knowledge of the subject.
2. The course content was unbiased and balanced.	8. I intend to apply the knowledge from this course to my practice.
3. The course was relevant to my practice.	9. What I have learned from this course will have an impact on my knowledge.
4. I would recommend this course to my peers.	10. What I have learned from this course will have an impact on patient outcome.
5. What I have learned from this course will have an impact on my practice.	11. The overall rating for this course.
6. The course was well-organized and clear.	

	Domestic Violence for Florida Nurses (Mandatory) **2 Contact Hours**					Florida Laws and Rules Governing Nursing Practice (Mandatory) **2 Contact Hours**					Human Trafficking in Florida, 2nd Edition (Mandatory) **2 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.

____

NURSING - COURSE EVALUATION (ANCCFL2623B - Required)

To receive continuing education credits for this program, this mandatory evaluation form must be completed.

Licensee Name: ______________________________ **License #**______________________

Your honest feedback is vital for the planning, evaluation, and design of future educational programs.

SECTION I: Demographics: Your current license type and education level: ❍LPN/LVN ❍RN - Associate degree ❍RN - Bachelor's degree ❍RN - Master's degree ❍APRN - Master's degree ❍Doctorate / DNP / Other Doctorate ❍Other (specify)______________________

How long have your been a nurse: ❍Less than 5 years ❍6 to 10 years ❍11 to 15 years ❍16 to 20 years ❍Over 20 years ❍Not a nurse

SECTION II: Course Evaluation
Please complete the following for each course you have completed. Mark the circle that best matches your evaluation of the question.

1. After completing this course, I am able to meet each of the Learning Outcomes.	7. The course demonstrated the author's knowledge of the subject.
2. The course content was unbiased and balanced.	8. I intend to apply the knowledge from this course to my practice.
3. The course was relevant to my practice.	9. What I have learned from this course will have an impact on my knowledge.
4. I would recommend this course to my peers.	10. What I have learned from this course will have an impact on patient outcome.
5. What I have learned from this course will have an impact on my practice.	11. The overall rating for this course.
6. The course was well-organized and clear.	

	Preventing Medical Errors for Florida Nurses (Mandatory) **2 Contact Hours**					Recognizing and Reporting Nurse Impairment in the Workplace for Florida Nurses (Mandatory)- **2 Contact Hours**					Basic Psychiatric Concepts **6 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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NURSING - COURSE EVALUATION (ANCCFL2623B - Required)

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How long have your been a nurse: ❍Less than 5 years ❍6 to 10 years ❍11 to 15 years ❍16 to 20 years ❍Over 20 years ❍Not a nurse

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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.	

	Crisis Resource Management for Healthcare Professionals **3 Contact Hours**					Management of Atrial Fibrillation (AF) for Nurses **1 Contact Hour**					Nursing Assessment, Management and Treatment of Autoimmune Diseases - **6 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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