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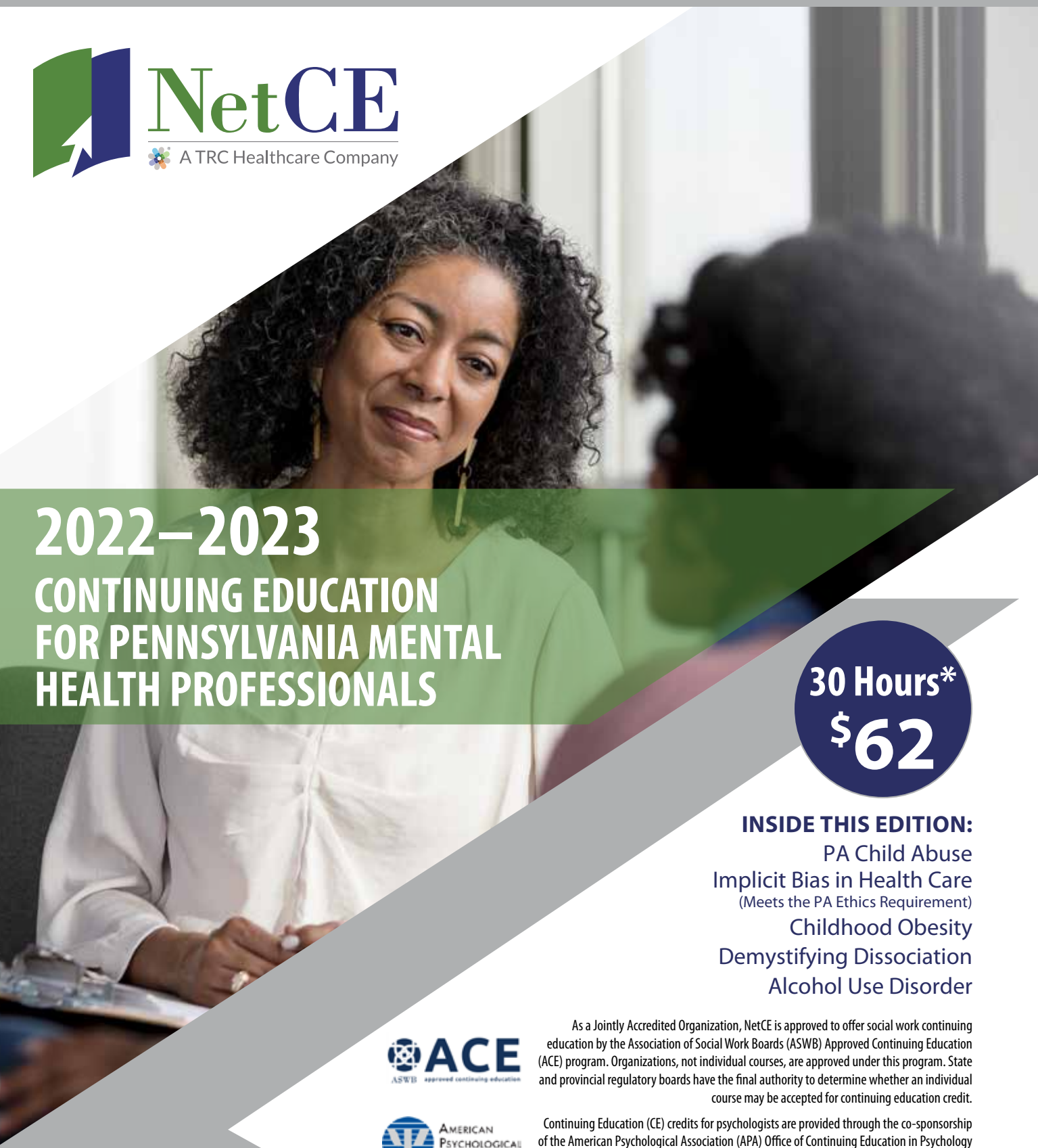

2022–2023
CONTINUING EDUCATION FOR PENNSYLVANIA MENTAL HEALTH PROFESSIONALS

30 Hours*
$62

INSIDE THIS EDITION:

PA Child Abuse
Implicit Bias in Health Care
(Meets the PA Ethics Requirement)
Childhood Obesity
Demystifying Dissociation
Alcohol Use Disorder

ACE ASWB approved continuing education

As a Jointly Accredited Organization, NetCE is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. State and provincial regulatory boards have the final authority to determine whether an individual course may be accepted for continuing education credit.

American Psychological Association

Continuing Education (CE) credits for psychologists are provided through the co-sponsorship of the American Psychological Association (APA) Office of Continuing Education in Psychology (CEP). The APA CEP Office maintains responsibility for the content of the programs.

*Effective November 19, 2019, licensees may complete all 30 hours by home study online.

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Attention Pennsylvania Mental Health Professionals

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The Pennsylvania State Board of Social Workers, Marriage and Family Therapists and Professional Counselors accepts courses from any provider who is approved by the ASWB and/or the APA.

*Pennsylvania Continuing Education Requirement

Pennsylvania mental health professionals are required to complete 30 hours of continuing education every two-year renewal period, including three hours of ethics, two hours of approved child abuse recognition and reporting training, and one hour of suicide prevention. Effective November 19, 2019, licensees may complete all 30 hours by home study online.

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Child Abuse Identification and Reporting: The Pennsylvania Requirement

This course is approved by the Pennsylvania Department of Human Services to fulfill the requirement for 2 hours of Child Abuse Recognition and Reporting (Act 31) training for healthcare professionals renewing their license. Provider number CACE000020.

Audience
This course is designed for all Pennsylvania health professionals required to complete child abuse education.

Course Objective
The purpose of this course is to enable healthcare professionals in all practice settings to define child abuse and identify the children who are affected by violence. This course describes how a victim can be accurately diagnosed and identifies the community resources available in the state of Pennsylvania for child abuse victims.

Learning Objectives
Upon completion of this course, you should be able to:

1. Summarize the historical context of child abuse.
2. Discuss the emergence of the child welfare system in Pennsylvania.
3. Define child abuse and neglect and identify the different forms of child abuse and neglect.
4. Discuss the scope of child abuse and neglect in the United States and specifically in Pennsylvania.
5. Review the mandatory reporting process and mandated reporters in the state of Pennsylvania, including possible barriers to reporting suspected cases of child abuse.

Faculty
Alice Yick Flanagan, PhD, MSW, received her Master's in Social Work from Columbia University, School of Social Work. She has clinical experience in mental health in correctional settings, psychiatric hospitals, and community health centers. In 1997, she received her PhD from UCLA, School of Public Policy and Social Research. Dr. Yick Flanagan completed a year-long post-doctoral fellowship at Hunter College, School of Social Work in 1999. In that year she taught the course Research Methods and Violence Against Women to Masters degree students, as well as conducting qualitative research studies on death and dying in Chinese American families. (A complete biography appears at the end of this course.)

Faculty Disclosure
Contributing faculty, Alice Yick Flanagan, PhD, MSW, has disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

Division Planners
Jane C. Norman, RN, MSN, CNE, PhD
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Sarah Campbell

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The division planners and director have disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

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Continuing Education (CE) credits for psychologists are provided through the co-sponsorship of the American Psychological Association (APA) Office of Continuing Education in Psychology (CEP). The APA CEP Office maintains responsibility for the content of the programs.

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Designations of Credit
Social Workers participating in this intermediate to advanced course will receive 3 Clinical continuing education clock hours.

NetCE designates this continuing education activity for 3 CE credits.

NetCE designates this continuing education activity for 1.5 NBCC clock hours.

Individual State Behavioral Health Approvals
In addition to states that accept ASWB, NetCE is approved as a provider of continuing education by the following state boards: Alabama State Board of Social Work Examiners, Provider #0515; Florida Board of Clinical Social Work, Marriage and Family Therapy and Mental Health, Provider #50-2405; Illinois Division of Professional Regulation for Social Workers, License #159.001094; Illinois Division of Professional Regulation for Licensed Professional and Clinical Counselors, License #197.000185; Illinois Division of Professional Regulation for Marriage and Family Therapists, License #168.000190.

Special Approvals
This course is approved by the Pennsylvania Department of Human Services to fulfill the requirement for 3 hours of Child Abuse Recognition and Reporting (Act 31) training for healthcare professionals applying for licensure. Provider number CACE000020.

This course is approved by the Pennsylvania Department of Human Services to fulfill the requirement for 2 hours of Child Abuse Recognition and Reporting (Act 31) training for healthcare professionals renewing their license. Provider number CACE000020.

About the Sponsor
The purpose of NetCE is to provide challenging curricula to assist healthcare professionals to raise their levels of expertise while fulfilling their continuing education requirements, thereby improving the quality of healthcare.

Our contributing faculty members have taken care to ensure that the information and recommendations are accurate and compatible with the standards generally accepted at the time of publication. The publisher disclaims any liability, loss or damage incurred as a consequence, directly or indirectly, of the use and application of any of the contents. Participants are cautioned about the potential risk of using limited knowledge when integrating new techniques into practice.

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

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EVIDENCE-BASED PRACTICE RECOMMENDATION

Sections marked with this symbol include evidence-based practice recommendations. The level of evidence and/or strength of recommendation, as provided by the evidence-based source, are also included so you may determine the validity or relevance of the information. These sections may be used in conjunction with the study questions and course material for better application to your daily practice.

HISTORICAL CONTEXT

Today, there is an established system in the United States to respond to reports of child abuse and neglect; however, this has not always been the case. This is not because child abuse, neglect, and maltreatment are new social phenomena. Rather, the terms "child abuse," "child neglect," and "child maltreatment" are relatively new, despite the fact that this social problem has existed for thousands of years [1]. Cruelty to children by adults has been documented throughout history and across cultures. In China, infant girls were often neglected during times of famine or sold during times of extreme poverty. There is also historical evidence that cultures have taken steps to stop child abuse and cruelty. For example, 6,000 years ago in Mesopotamia, orphans had their own patron goddesses for help and protection [2].

In many cases, the physical abuse of children has been linked to punishment. Throughout history, physical child abuse was justified because it was believed that severe physical punishment was necessary to discipline, rid the child of evil, or educate [2; 13]. It was not until 1861 that there was a public outcry in the United States against extreme corporal punishment. This reform was instigated by Samuel Halliday, who reported the occurrence of many child beatings by parents in New York City [2].

Sexual abuse of children, particularly incest (defined as sex between family members), is very much a taboo. The first concerted efforts to protect children from sexual abuse occurred in England during the 16th century. During this period, boys were protected from forced sodomy and girls younger than 10 years of age from forcible rape [2]. However, in the 1920s, sexual abuse of children was described solely as an assault committed by "strangers," and the victim of such abuse was perceived as a "temptress" rather than an innocent child [2].

The first public case of child abuse in the United States that garnered widespread interest took place in 1866 in New York City. Mary Ellen Wilson was an illegitimate child, 10 years of age, who lived with her foster parents [3]. Neighbors were concerned that she was being mistreated; however, her foster parents refused to change their behaviors and said that they could treat the child as they wished [2]. Because there were no agencies established to protect children specifically, Henry Berge, founder of the Society for the Prevention of Cruelty to Animals, intervened on Mary's behalf [3]. He argued that she was a member of the animal kingdom and deserved protection. The case received much publicity, and as a result, in 1874 the New York Society for the Prevention of Cruelty to Children was formed [3]. Because of this case, every state now has a system in place for reporting child abuse. The Pennsylvania Department of Public Welfare (now known as the Department for Human Services) was established in 1921 and part of its original intent was to care for "dependent, defective, and delinquent children" [7].

As a result of Berge's advocacy for children's safety, other nongovernmental agencies were formed throughout the United States, and the establishment of the juvenile court was a direct result of the Society for the Prevention of Cruelty to Children [13]. By 1919, all but three states had juvenile courts. However, many of these nongovernmental agencies could not sustain themselves during the Depression [13].

The topic of child abuse and neglect received renewed interest in the 1960s, when a famous study titled "The Battered-Child Syndrome" was published [1; 4]. In the study, researchers argued that the battered-child syndrome consisted of traumatic injuries to the head and long bones, most commonly to children younger than 3 years of age, inflicted by parents [1; 4]. The study was viewed as the seminal work on child abuse, alerting both the general public and the academic community to the problems of child abuse [1; 2]. Soon, all 50 states required physicians to report child abuse [14]. In the early 1970s, Senator Walter Mondale noted that there was no official agency that spent its energies on preventing and treating child maltreatment [13]. Congress passed the Child Abuse Prevention and Treatment Act (CAPTA) of 1974, which targeted federal funds to improve states' interventions for the identification and reporting of abuse [13]. In 2010, additional prevention and treatment programs were funded through CAPTA, and in 2012, the Administration on Children, Youth, and Families began to focus on protective factors to child abuse and neglect [61].

Today, child abuse and neglect are considered significant social problems with deleterious consequences. As noted, a system has been implemented in all 50 states to ensure the safety of children, with laws defining what constitutes abuse and neglect and who is mandated to report.

CHILD WELFARE IN PENNSYLVANIA

The Children's Aid Society of Pennsylvania, one of the first organizations to advocate for children and their welfare in the United States, was founded in 1882 [62]. In the following years, the Children's Aid Society was instrumental in educating the public about the unsanitary and unsafe conditions in almshouses, which were sometimes used for orphaned or abandoned children. Subsequently, legislation was passed in Pennsylvania to ensure that children were not permanently placed in almshouses [62].

In the state of Pennsylvania, Act 91 was passed in 1967 and gave child welfare agencies in all counties the responsibility to investigate child abuse reports made by physicians [18]. Three years later, Act 91 was modified to include school nurses and teachers as mandated reporters [18].

Pennsylvania was also the first state to take a noncriminal view of child abuse [22; 26]. In 1975, the Child Protective Services Law was enacted, which established a child abuse hotline and a statewide central registry in Pennsylvania in order to encourage the reporting of child abuse [18; 26].

The child welfare system in Pennsylvania is supervised by the state but administered by the different local counties [27]. This means that there are a total of 67 county agencies that administer the child welfare and juvenile justice services [27]. Aside from frank abuse, reports of other acts that might affect the well-being of a child are also accepted. The State of Pennsylvania delineates two functions for the local agencies: child protective services (CPS) and general protective services (GPS).

In 2017, Governor Tom Wolf approved Act 68 (also known as the Newborn Protection Act) to increase the number of locations for parents to give up their newborn without criminal liability [63]. In 2018, Act 29 was signed and expanded the definition of child abuse in Pennsylvania to include leaving a child unsupervised with a sexual predator [64].

CHILD PROTECTIVE SERVICES

CPS is in place to address acts that are "non-accidental serious physical or mental injury, sexual abuse, or exploitation, or serious physical neglect caused by acts or omissions of the parent or caretaker" [32]. In other words, these are cases in which there is reasonable cause to suspect child abuse and conduct an investigation.

Case Scenario

A young boy comes into the community health clinic for a physical exam. The boy's mother hovers and does not seem to want to let her son answer any questions. During the exam, in the process of taking blood, the nurse notices some bruises and lacerations on the boy's arm. Later, bruises in the shape of a belt are observed on the boy's back as well. Upon questioning, the boy will only say that he was "bad."

In this case, the nurse should make a report to ChildLine. This would be classified as a CPS case, and an investigation would be conducted. More information will be presented about reporting in later sections of this course.

GENERAL PROTECTIVE SERVICES

GPS is involved in non-abuse cases or acts that involve "non-serious injury or neglect" [38]. This includes children who experience "inadequate shelter, food, clothing, health care, truancy, inappropriate discipline, lack of supervision, hygiene issues, abandonment, or other problems that threaten a child's opportunity for healthy growth and development" [38]. One of the following criteria must be met for GPS to be involved [55]:

- Lack of parental control
- Deprivation of the essentials of life
- Illegal placement for adoption or care
- Abandonment by parents or guardians
- Chronic truancy
- Habitual disobedience
- Formal adjudication
- Commitment of a delinquent act at an age younger than 10 years
- Defined as ungovernable
- Born to parents with terminated parental rights

Case Scenario

Ms. J, a neighbor, notices E (5 years of age) and S (6 years of age) running around their front yard at 8 p.m. The front door of the house is wide open, and Ms. J asks if their mother is home. S states that her mother went out with her girlfriend to a party. Ms. J asks if a babysitter is at the house, and S answers "no" again. This is not the first time neighbors have noticed that the kids are left at home alone. The neighbors report that the mother often comes home late, intoxicated.

In this case, a bystander (likely Ms. J or one of the neighbors) could call ChildLine, the local county agency, or even the police, and the case would be addressed by GPS. More information will be presented about reporting in later sections of this course.

DEFINITIONS OF CHILD ABUSE AND NEGLECT

The federal definition of child abuse is evident in CAPTA, published as a product of federal legislation. CAPTA defines a child to be any individual younger than 18 years of age, except in cases of sexual abuse. In cases of sexual abuse, the age specified by the child protection laws varies depending on the state in which the child resides [5]. CAPTA defines child abuse as, "any recent act or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse, or exploitation, or an act or failure to act that presents an imminent risk of serious harm" [6].

In Pennsylvania, the child abuse law takes a very comprehensive approach to defining of child abuse [26]. According to Pennsylvania law, child abuse refers to intentionally, knowingly, or recklessly doing any of the following [43; 54]:

- Causing bodily injury to a child through any recent act or failure to act

- Fabricating, feigning, or intentionally exaggerating or inducing a medical symptom or disease that results in a potentially harmful medical evaluation or treatment to the child through any recent act
- Causing or substantially contributing to serious mental injury to a child through any act or failure to act or a series of such acts or failures to act
- Causing sexual abuse or exploitation of a child through any act or failure to act
- Creating a reasonable likelihood of bodily injury to a child through any recent act or failure to act
- Creating a likelihood of sexual abuse or exploitation of a child through any recent act or failure to act
- Causing serious physical neglect of a child
- Engaging in any of the following recent acts:
  - Kicking, biting, throwing, burning, stabbing, or cutting a child in a manner that endangers the child
  - Unreasonably restraining or confining a child, based on consideration of the method, location, or duration of the restraint or confinement
  - Forcefully shaking a child younger than 1 year of age
  - Forcefully slapping or otherwise striking a child younger than 1 year of age
  - Interfering with the breathing of a child
  - Causing a child to be present at a location while a violation relating to the operation of methamphetamine laboratory is occurring, provided that the violation is being investigated by law enforcement
  - Leaving a child unsupervised with an individual, other than the child's parent, who the actor knows or reasonably should have known a) is required to register as a Tier II or Tier III sexual offender, where the victim of the sexual offense was younger than 18 years of age when the crime was committed; b) has been determined to be a sexually violent predator; or c) has been determined to be a sexually violent delinquent child
- Causing the death of the child through any act or failure to act
- Engaging a child in a severe form of trafficking in persons or sex trafficking, as those terms are defined under section 103 of the Trafficking Victims Protection Act of 2000

In addition, the Code explicitly excludes specific acts and injuries from the definition of child abuse. Effective December 31, 2014, the following are considered exclusions to the definition of child abuse [44]:

- Environmental factors: No child shall be deemed to be physically or mentally abused based on injuries that result solely from environmental factors, such as inadequate housing, furnishings, income, clothing, and medical care, that are beyond the control of the parent or person responsible for the child's welfare with whom the child resides. This shall not apply to any child-care service, excluding an adoptive parent.
- Practice of religious beliefs: If, upon investigation, the county agency determines that a child has not been provided needed medical or surgical care because of sincerely held religious beliefs of the child's parents or relative within the third degree of consanguinity and with whom the child resides, which beliefs are consistent with those of a bona fide religion, the child shall not be deemed to be physically or mentally abused. In such cases the following shall apply:
  - The county agency shall closely monitor the child and the child's family and shall seek court-ordered medical intervention when the lack of medical or surgical care threatens the child's life or long-term health.
  - All correspondence with a subject of the report and the records of the department and the county agency shall not reference child abuse and shall acknowledge the religious basis for the child's condition.
  - The family shall be referred for general protective services, if appropriate.
  - This subsection shall not apply if the failure to provide needed medical or surgical care causes the death of the child.
  - This subsection shall not apply to any child-care service as defined in this chapter, excluding an adoptive parent.
- Use of force for supervision, control, and safety purposes: Subject to the rights of parents, the use of reasonable force on or against a child by the child's own parent or person responsible for the child's welfare shall not be considered child abuse if any of the following conditions apply:
  - The use of reasonable force constitutes incidental, minor, or reasonable physical contact with the child or other actions that are designed to maintain order and control.

  - The use of reasonable force is necessary to quell a disturbance or remove the child from the scene of a disturbance that threatens physical injury to persons or damage to property; to prevent the child from self-inflicted physical harm; for self-defense or the defense of another individual; or to obtain possession of weapons or other dangerous objects or controlled substances or paraphernalia that are on the child or within the control of the child.
- Rights of parents: Nothing in this chapter shall be construed to restrict the generally recognized existing rights of parents to use reasonable force on or against their children for the purposes of supervision, control, and discipline of their children. Such reasonable force shall not constitute child abuse.
- Participation in events that involve physical contact with child: An individual partici-pating in a practice or competition in an interscholastic sport, physical education, recreational activity, or extracurricular activity that involves physical contact with a child does not, in itself, constitute contact that is subject to the reporting requirements of this chapter.
- Defensive force: Reasonable force for self-defense or the defense of another individual shall not be considered child abuse.
  - Child-on-child contact: Harm or injury to a child that results from the act of another child shall not constitute child abuse unless the child who caused the harm or injury is a perpetrator. Notwithstanding this, the following shall apply: Acts constituting any of the following crimes against a child shall be subject to the reporting requirements: rape, involuntary deviate sexual intercourse, sexual assault, aggravated indecent assault, indecent assault, and indecent exposure.
  - No child shall be deemed to be a perpetrator of child abuse based solely on physical or mental injuries caused to another child in the course of a dispute, fight, or scuffle entered into by mutual consent.
  - A law enforcement official who receives a report of suspected child abuse is not required to make a report to the department if the person allegedly responsible for the child abuse is a nonperpetrator child.

It is important to note that exclusions are utilized by the CPS agency when investigating suspected abuse and should not be considered exclusions from reporting suspected abuse.

For the purposes of this course, a perpetrator is defined as a person who has committed child abuse. According to the Pennsylvania Code, the term includes only [42; 54]:

- A parent of the child
- A spouse or former spouse of the child's parent
- A paramour or former paramour of the child's parent
- A person 14 years of age or older and responsible for the child's welfare, including a person who provides temporary or permanent care, supervision, mental health diagnosis or treatment, or training or control of a child in lieu of parental care, supervision, and control
- An individual 14 years of age or older who resides in the same home as the child
- An individual 18 years of age or older who does not reside in the same home as the child but is related within the third degree of consanguinity or affinity by birth or adoption to the child
- An individual 18 years of age or older who engages a child in severe forms of trafficking in persons or sex trafficking, as those terms are defined under section 103 of the Trafficking Victims Protection Act of 2000

In a significant revision to the definition of perpetrator, school personnel and other childcare providers are considered "individuals responsible for the child's welfare" and may be perpetrators of child abuse; there is no longer a separate definition for student abuse [42]. As such, a perpetrator may be any such person who has direct or regular contact with a child through any program, activity, or services sponsored by a school, for-profit organization, or religious or other not-for-profit organization.

In addition, only the following may be considered a perpetrator for failing to act [42; 54]:

- A parent of the child
- A spouse or former spouse of the child's parent
- A paramour or former paramour of the child's parent
- A person 18 years of age or older and responsible for the child's welfare or who resides in the same home as the child

FORMS OF CHILD ABUSE AND NEGLECT

There are several acts that may be considered abusive, and knowledge of what constitutes abuse is vital for healthcare providers and other mandated reporters. In this section, specific behaviors that fall under the category of abuse and neglect will be reviewed.

Physical Abuse

Physical abuse injuries can range from minor bruises and lacerations to severe neurologic trauma and death. Physical abuse is one of the most easily identifiable forms of abuse and the type most commonly seen by healthcare professionals. Physical injuries that may be indicative of abuse include bruises/welts, burns, fractures, abdominal injuries, lacerations/abrasions, and central nervous system trauma [8; 34].

Bruises and welts are of particular concern, especially those that appear on:

- The face, lips, mouth, ears, eyes, neck, or head
- The trunk, back, buttocks, thighs, or extremities
- Multiple body surfaces

Patterns such as the shape of the article (e.g., a cord, belt buckle, teeth, hand) used to inflict the bruise or welt are common. Cigar or cigarette burns may be present, and they will often appear on the child's soles, palms, back, or buttocks. Patterned burns that resemble shapes of appliances, such as irons, burners, or grills, are of concern as well.

Fractures that result from abuse might be found on the child's skull, ribs, nose, or any facial structure. These may be multiple or spiral fractures at various stages of healing. When examining patients, note bruises on the abdominal wall, any intestinal perforation, ruptured liver or spleen, and blood vessel, kidney, bladder, or pancreatic injury, especially if accounts for the cause do not make sense. Look for signs of abrasions on the child's wrists, ankles, neck, or torso. Lacerations might also appear on the child's lips, ears, eyes, mouth, or genitalia. If violent shaking or trauma occurred, the child might experience a subdural hematoma [8; 34].

EVIDENCE-BASED PRACTICE RECOMMENDATION

According to the American College of Radiology, fractures highly suggestive of physical abuse include rib fractures, classic metaphyseal lesions, those unsuspected or inconsistent with the history or age of the child, multiple fractures involving more than one skeletal area, and fractures of differing ages.

(https://acsearch.acr.org/docs/69443/Narrative. Last accessed July 26, 2022.)

Level of Evidence: Expert Opinion/Consensus Statement

Sexual Abuse/Exploitation

According to the Pennsylvania Code, sexual abuse or exploitation is defined as [45]:

- The employment, use, persuasion, inducement, enticement, or coercion of a child to engage in or assist another individual to engage in sexually explicit conduct, which includes, but is not limited to, the following:
  - Looking at the sexual or other intimate parts of a child or another individual for the purpose of arousing or gratifying sexual desire in any individual
  - Participating in sexually explicit conversation either in person, by telephone, by computer, or by a computer-aided device for the purpose of sexual stimulation or gratification of any individual
  - Actual or simulated sexual activity or nudity for the purpose of sexual stimulation or gratification of any individual
  - Actual or simulated sexual activity for the purpose of producing visual depiction, including photographing, videotaping, computer depicting, or filming
- Any of the following offenses committed against a child:
  - Rape
  - Statutory sexual assault
  - Involuntary deviate sexual intercourse
  - Sexual assault
  - Institutional sexual assault
  - Aggravated indecent assault
  - Indecent assault
  - Indecent exposure
  - Incest
  - Prostitution
  - Sexual abuse
  - Unlawful contact with a minor
  - Sexual exploitation

This does not include consensual activities between a child who is 14 years of age or older and another person who is 14 years of age or older and whose age is within four years of the child's age.

Child sexual abuse can be committed by a stranger or an individual known to the child. Sexual abuse may be manifested in many different ways, including [9; 10]:

- Verbal: Obscene phone calls or talking about sexual acts for the purpose of sexually arousing the adult perpetrator

- Voyeurism: Watching a child get dressed or encouraging the child to masturbate while the perpetrator watches
- Child prostitution: Involving the child in sexual acts for monetary profit
- Child pornography: Taking photos of a child in sexually explicit poses or acts
- Exhibitionism: Exposing his/her genitals to the child or forcing the child to observe the adult or other children in sexual acts
- Molestation: Touching, fondling, or kissing the child in a provocative manner; for example, fondling the child's genital area or long, lingering kisses
- Sexual penetration: The penetration of part of the perpetrator's body (e.g., finger, penis, tongue) into the child's body (e.g., mouth, vagina, anus)
- Rape: Usually involves sexual intercourse without the victim's consent and usually involves violence or the threat of violence
- Commercial sex act: Any sex act on account of which anything of value is given to or received by any person

Physical Neglect

Pennsylvania law defines serious physical neglect of a child as repeated, prolonged, or egregious failure to supervise a child in a manner that is appropriate considering the child's developmental age and abilities, and/or the failure to provide a child with adequate essentials of life, including food, shelter, or medical care, when committed by a perpetrator that endangers a child's life or health, threatens a child's well-being, causes bodily injury, or impairs a child's health, development, or functioning. Due to the ambiguity of definitions of child abuse and neglect, CAPTA provides minimum standards that each state must incorporate in its definition of neglect. Examples of child neglect may include [6; 11; 12]:

- Failure to provide adequate food, clothing, shelter, hygiene, supervision, and protection
- Refusal and/or delay in medical attention and care (e.g., failure to provide needed medical attention as recommended by a healthcare professional or failure to seek timely and appropriate medical care for a health problem)
- Abandonment, characterized by desertion of a child without arranging adequate care and supervision. Children who are not claimed within two days or who are left alone with no supervision and without any information about their parents'/caretakers' whereabouts are examples of abandonment.
- Expulsion or blatant refusals of custody on the part of parent/caretaker, such as ordering a child to leave the home without adequate arrangement of care by others
- Inadequate supervision (i.e., child is left unsupervised or inadequately supervised for extended periods of time)

Emotional Abuse

Under Pennsylvania law, emotional abuse involves an act or failure to act by a perpetrator that causes nonaccidental serious mental injury. Serious mental injury is "a psychological condition, as diagnosed by a physician or licensed psychologist, including the refusal of appropriate treatment, that renders a child chronically and severely anxious, agitated, depressed, socially withdrawn, psychotic, or in reasonable fear that his or her life or safety is threatened, or that seriously interferes with a child's ability to accomplish age-appropriate development and social tasks" [45].

The following behaviors could constitute emotional abuse [6; 11; 12]:

- Verbal abuse: Belittling or making pejorative statements in front of the child, which results in a loss or negative impact on the child's self-esteem or self-worth
- Inadequate nurturance/affection: Inattention to the child's needs for affection and emotional support
- Witnessing domestic violence: Chronic spousal abuse in homes where the child witnesses the violence
- Substance and/or alcohol abuse: The parent/caretaker is aware of the child's substance misuse problem but chooses not to intervene or allows the behavior to continue
- Refusal or delay of psychological care: Failure or delay in obtaining services for the child's emotional, mental, or behavioral impairments
- Permitted chronic truancy: The child averages at least five days per month of school absence and the parent/guardian does not intervene
- Failure to enroll: Failure to enroll or register a child of mandatory school age or causing the child to remain at home for nonlegitimate reasons
- Failure to access special education services: Refusal or failure to obtain recommended services or treatment for remedial or special education for a child's diagnosed learning disorder

Trafficking and Exploitation

It can be difficult to identify and intervene to stop human trafficking and exploitation, because it is hidden and even people who interact with victims may not recognize that it is happening. However, in many cases, women and children are considered the typical victims of human trafficking. Trafficking and exploitation are real risks to child safety and well-being and are reportable as forms of abuse.

There are several different types of child or minor human trafficking, but the term is generally defined as the recruitment, transportation, provision, or obtaining of a child for labor or services through the use of force, fraud, or coercion. Severe forms of human trafficking include sex and labor trafficking, including debt bondage and slavery.

Labor Trafficking

Labor trafficking is defined as labor obtained by the use of threat of serious harm, physical restraint, or abuse of the legal process. Severe labor trafficking includes the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion, for the purpose of subjection to involuntary servitude, peonage (i.e., paying off debt through work), debt bondage (i.e., debt slavery, bonded labor or services for a debt or other obligation), or slavery (i.e., a condition compared to that of a slave in respect of exhausting labor or restricted freedom).

Typically, children involved in forced labor are being given little or no pay. In the United States, forced labor is predominantly found in five sectors [57]:

- Prostitution and sex industry (46%)
- Domestic servitude (27%)
- Agriculture (10%)
- Sweatshops and factories (5%)
- Restaurant and hotel work (4%)

Among child victims, forced domestic servitude is a serious concern, particularly related to the provision of domestic services for 10 to 16 hours per day on activities such as child care, cooking, cleaning, and yard work/gardening.

Sex Trafficking

The Victims of Trafficking and Violence Protection Act defines sex trafficking as, "the recruitment, harboring, transportation, provision, or obtaining of a person for the purpose of a commercial sex act" [58]. A commercial sex act is, "any sex act on account of which anything of value is given to or received by any person" [58]. In other words, it involves the illegal transport of humans to be exploited in a sexual manner for financial gains [59]. Victims of sex trafficking could be forced into prostitution, stripping, pornography, escort services, and other sexual services [60]. Under federal law, sex trafficking (such as prostitution, pornography, or exotic dancing) does not require there be force, fraud, or coercion if the victim is younger than 18 years of age.

The term "domestic minor sex trafficking" has become a popular term used to connote the buying, selling, and/or trading of children for sexual services within the country, not internationally [60]. In the United States, the children most vulnerable to domestic minor trafficking are [60]:

- Youth in the foster care system
- Youth who identify as LGBTQIA+
- Youth who are homeless or runaway
- Youth with disabilities
- Youth with mental health or substance abuse disorders
- Youth with a history of sexual abuse
- Youth with a history of being involved in the welfare system
- Youth who identify as native or aboriginal
- Youth with family dysfunction

EPIDEMIOLOGY OF CHILD ABUSE AND NEGLECT

NATIONAL PREVALENCE

In 2020, there were 3.9 million referrals to child protective agencies in the United States [15]. More than 2.1 million (or 54%) were assessed to be appropriate for a response, and 27.6% of reports were made by health, social service, and/or mental health professionals [15]. Girls tend to be victims at a slightly higher rate (8.9 per 1,000 population) compared with boys (7.9 per 1,000 population) [15]. The most common perpetrators were parents; 90.6% of victims are maltreated by one or both parents [15]. Specifically, mothers are more often perpetrators compared with fathers (58.3% of victims were abused by a mother vs. 44.3% of victims were abused by a father) [15].

As of 2020, 8.4 of every 1,000 children in the United States were victims of abuse and/or neglect [15]. This is the unique rate, meaning each child is counted only once regardless the number of times a report may have been filed for abuse/neglect. The fatality rate for 2020 was 2.38 deaths per 100,000 children [15].

Research has shown that racial and ethnic minority children (particularly African American, Native American/Alaska Native, and multi-racial children) tend to have higher rates of reported child maltreatment compared with their White counterparts (***Table 1***) [15]. However, the lowest reported rate is among Asian American children [15].

CHILD ABUSE VICTIMIZATION IN THE UNITED STATES ACCORDING TO RACE/ETHNICITY, 2020	
Race/Ethnicity	**Child Abuse Rate per 1,000 Children**
Native American/Alaska Native	15.5
African American	13.2
Multi-race	10.3
Pacific Islander	9.0
Hispanic	7.8
White	7.4
Asian American	1.6
Source: [15]	*Table 1*

PENNSYLVANIA STATE PREVALENCE

According to the Annual Child Protective Services Report, a yearly statistical report that documents child abuse cases in Pennsylvania, the child abuse hotline registered a total of f 32,919 reports of suspected abuse or neglect in 2020 [27]. Approximately 14% of these cases were substantiated, which translates to 4,593 cases of child abuse in 2020 [27]. This is a decrease of 9,333 reports (22%) compared with 2019, a decline attributed to the COVID-19 pandemic, and the reduced contact between children and mandated reporters during that time [27]. Of the substantiated child abuse cases, there were 73 fatalities, 22 more than in 2019 [27]. More than half (51.4%) of perpetrators of child abuse in 2020 were the parent of the child victim [27].

RECOGNIZING WARNING SIGNS

It is crucial that practitioners become familiar with the indications of child abuse and neglect. These factors do not necessarily conclusively indicate the presence of abuse or neglect; rather, they are clues that require further interpretation and clinical investigation. Some parental risk indicators include [8; 10; 12; 16]:

- Recounting of events that do not conform either with the physical findings or the child's physical and/or developmental capabilities
- Inappropriate delay in bringing the child to a health facility
- Unwillingness to provide information or the information provided is vague
- History of family violence in the home
- Parental misuse of substances and/or alcohol
- Minimal knowledge or concern about the child's development and care
- Environmental stressors, such as poverty, single parenthood, unemployment, or chronic illness in the family
- Unwanted pregnancy
- Early adolescent parent
- Expression that the parent(s) wanted a baby in order to feel loved
- Unrealistic expectations of the child
- Use of excessive physical punishment
- Healthcare service "shopping"
- History of parent "losing control" or "hitting too hard"

Child risk indicators include [8; 10; 12; 16]:

- Multiple school absences
- Learning or developmental disabilities
- History of multiple, unexplained illnesses, hospitalizations, or accidents
- Poor general appearance (e.g., fearful, poor hygiene, malnourished appearance, inappropriate clothing for weather conditions)
- Stress-related symptoms, such as headaches or stomachaches
- Frozen watchfulness
- Mental illness or symptoms, such as psychosis, depression, anxiety, eating disorders, or panic attacks
- Regression to wetting and soiling
- Sexually explicit play
- Excessive or out-of-the-ordinary clinging behavior
- Difficulties with concentration
- Disruptions in sleep patterns and/or nightmares

In addition, warning signs specifically associated with victims of child trafficking and/or exploitation include (but are not limited to):

- A youth that has been verified to be younger than 18 years of age and is in any way involved in the commercial sex industry or has a record of prior arrest for prostitution or related charges
- An explicitly sexual online profile
- Excessive frequenting of Internet chat rooms or classified sites
- Depicting elements of sexual exploitation in drawing, poetry, or other modes of creative expression
- Frequent or multiple sexually transmitted infections or pregnancies
- Lying about or not being aware of their true age
- Having no knowledge of personal data (e.g., age, name, date of birth)
- Having no identification
- Wearing sexually provocative clothing
- Wearing new clothes of any style, getting hair and/or nails done with no financial means
- Being secretive about whereabouts
- Having late nights or unusual hours
- Having a tattoo that s/he is reluctant to explain
- Being in a controlling or dominating relationship
- Not having control of own finances
- Exhibiting hypervigilance or paranoid behaviors
- Expressing interest in or being in relationships with adults or much older men or women

Some of the types of behaviors and symptoms discussed in the definitions of physical, sexual, and emotional abuse/neglect are also warning signs. For example, any of the injuries that may result from physical abuse, such as a child presenting with bruises in the shape of electric cords or belt buckles, should be considered risk factors for abuse.

CONSEQUENCES OF CHILD ABUSE

The consequences of child abuse and neglect vary from child to child, and these differences continue as victims grow older. Several factors will mediate the outcomes, including the [17]:

- Severity, intensity, frequency, duration, and nature of the abuse and/or neglect
- Age or developmental stage of the child when the abuse occurred
- Relationship between the victim and the perpetrator
- Support from family members and friends
- Level of acknowledgment of the abuse by the perpetrator
- Quality of family functioning

In examining some of the effects of physical abuse, it is helpful to frame the consequences along a lifespan perspective [3]. During infancy, physical abuse can cause neurologic impairments. Most cases of infant head trauma are the result of child abuse [19]. Neurologic damage may also affect future cognitive, behavioral, and developmental outcomes. Some studies have noted that, in early childhood, physically abused children show less secure attachments to their caretakers compared to their non-abused counterparts [20].

By middle to late childhood, the consequences are more notable. Studies have shown significant intellectual and linguistic deficits in physically abused children [3]. Other environmental conditions, such as poverty, may also compound this effect. In addition, a number of affective and behavioral problems have been reported among child abuse victims, including anxiety, depression, low self-esteem, excessive aggressive behaviors, conduct disorders, delinquency, hyperactivity, and social detachment [3; 8; 10; 12].

Surprisingly, there has been little research on the effects of childhood physical abuse on adolescents [3]. However, differences have been noted in parents who abuse their children during adolescence rather than preadolescence. It appears that lower socioeconomic status plays a lesser role in adolescent abuse as compared with abuse during preadolescence [21]. In addition, parents who abuse their children during adolescence are less likely to have been abused as children themselves compared with those parents who abused their children during preadolescence [21]. It is believed that the psychosocial effects of physical abuse manifest similarly in late childhood and adolescence.

Research findings regarding the effects of childhood physical abuse on adult survivors indicate an increased risk for major psychiatric disorders, including depression, post-traumatic stress disorder, and substance abuse [36]. Some adult survivors function well socially and in terms of mental and physical health, even developing increased resilience as a result of their experiences, while others exhibit depression, anxiety, post-traumatic stress, substance abuse, criminal behavior, violent behavior, and poor interpersonal relationships [3; 17; 46]. A meta-analysis found that adult survivors of child abuse were more likely to experience depression than non-abused counterparts, with the rates varying according to the type of abuse sustained (1.5-fold increase for physical child abuse, 2.11-fold increase for neglect, and 3-fold increase for emotional abuse) [24]. Similar results were found in a longitudinal study that compared a child welfare cohort to a group with no child welfare involvement. The child welfare group was twice as likely to experience moderate-to-severe depression

and generalized anxiety compared with the control group [25]. There is some evidence that vulnerability to long-term effects of maltreatment in childhood may be at least partially genetically mediated [50].

Although not all adult survivors of sexual abuse experience long-term psychological consequences, it is estimated that 20% to 50% of all adult survivors have identifiable adverse mental health outcomes [23]. Possible psychological outcomes include [10]:

- Affective symptoms: Numbing, post-traumatic stress disorder, anxiety, depression, obsessions and compulsions, somatization
- Interpersonal problems: Difficulties trusting others, social isolation, feelings of inadequacy, sexual difficulties (e.g., difficulties experiencing arousal and orgasm), avoidance of sex
- Distorted self-perceptions: Poor self-esteem, self-loathing, self-criticism, guilt, shame
- Behavioral problems: Risk of suicide, substance abuse, self-mutilation, violence
- Increased risk-taking behaviors: Abuse of substances, cigarette smoking, sexual risk-taking

Adult male survivors of child sexual abuse are three times as likely to perpetrate domestic violence as non-victims. In addition, female survivors of child sexual abuse are more vulnerable to bulimia, being a victim of domestic violence, and alcohol use disorder [28].

In more recent years, research has focused on the impact of adverse childhood experiences (ACEs) in general. ACEs are defined as potentially traumatic experiences that affect an individual during childhood (before 18 years of age) and increase the risk for future health and mental health problems (including increased engagement in risky behaviors) as adults [47]. Abuse and neglect during childhood are clear ACEs, but other examples include witnessing family or community violence; experiencing a family member attempting or completing suicide; parental divorce; parental or guardian substance abuse; and parental incarceration [47]. Adults who experienced ACEs are at increased risk for chronic illness, impaired health, violence, arrest, and substance use disorder [28; 52].

REPORTING SUSPECTED CHILD ABUSE

Pennsylvania has a delineated process in place to facilitate the reporting of suspected child abuse. In addition, in 2014, Governor Corbett signed four new bills intended to streamline and clarify the child abuse reporting process in Pennsylvania. These bills were spurred by the Sandusky child sexual abuse case.

PERMISSIVE REPORTERS

There are two general categories of child abuse reporters: mandated reporters and permissive reporters. Permissive reporters are individuals who report an incident of suspected child abuse. These persons are not required to act or intervene in cases of suspected abuse. Put plainly, permissive reporters can report abuse while mandated reporters must report. However, it is important to note that any person is encouraged to report suspected child abuse or cause a report of suspected child abuse to be made to the department, county agency, or law enforcement, if that person has reasonable cause to suspect that a child is a victim of child abuse.

MANDATED REPORTERS

In Pennsylvania, a mandated reporter is required to make a report of suspected child abuse when he or she has reasonable cause to suspect that a child is a victim of child abuse if [48]:

- The mandated reporter comes into contact with the child in the course of employment, occupation, and practice of a profession or through a regularly scheduled program, activity, or service.
- The mandated reporter is directly responsible for the care, supervision, guidance, or training of the child, or is affiliated with an agency, institution, organization, school, regularly established church or religious organization, or other entity that is directly responsible for the care, supervision, guidance, or training of the child, regardless of the setting of the disclosure of abuse (within or outside of the reporter's professional role).
- A person makes a specific disclosure to the mandated reporter that an identifiable child is the victim of child abuse either within or outside of the reporter's professional role.
- An individual 14 years of age or older makes a specific disclosure to the mandated reporter (either within or outside of the reporter's professional role) that the individual has committed child abuse.

The mandated reporter is not required to interrogate the victim or identify the person responsible for the child abuse in order to make a report of suspected child abuse.

By law, individuals who come into contact with children on a frequent and consistent basis due to their work are legally required to report any suspected child abuse [39]. Mandated reporters in the state of Pennsylvania include, but are not limited to, [39]:

- Physicians (including osteopaths)
- Medical examiners
- Coroners
- Funeral directors
- Dentists

- Optometrists
- Chiropractors
- Podiatrists
- Interns
- Registered nurses
- Licensed practical nurses
- Hospital personnel engaged in the admission, examination, care, or treatment of persons
- Christian Science practitioners
- Members of the clergy
- School administrators
- School teachers
- School nurses
- Social services workers
- Day-care center workers or any other child-care or foster-care workers
- Mental health professionals
- Peace officers or law enforcement officials

Senate Bill 21 and House Bill 436 were two of the bills signed into law and enacted in 2014. These bills elucidate that mandated reporters are "to include anyone who comes in contact with a child, or is directly responsible for the care, supervision, guidance, or training of a child" [51]. Under this expanded definition, additional individuals who are also classified as mandatory reporters include [39]:

- A person licensed or certified to practice in any health-related field under the jurisdiction of the Department of State
- A school employee
- A foster parent
- An individual, paid or unpaid, who, on the basis of the individual's role as an integral part of a regularly scheduled program, activity, or service, accepts responsibility for a child
- An employee of a social services agency
- An employee of a public library
- Those who are supervised by mandated reporters
- An independent contractor with direct contact with children
- An attorney affiliated with an agency, institution, or organization that is responsible for the care, supervision, guidance, or control of children

It has long been debated whether attorneys should be included as mandated reporters. With this new definition, there is a seeming compromise, limiting the mandate to attorneys who are affiliated with an organization that is responsible for the care or supervision of children [37].

Privileged communication between any mandated reporter and his or her patient or client does not apply in cases of child abuse, and failure to report this information is considered a violation of the law [39]. There are exceptions: confidential communication made to an ordained member of the clergy (within the scope of 42 Pennsylvania CS §§ 5943), and confidential communications made to an attorney so long as they are within the scope of 42 Pennsylvania CS §§ 5916 (relating to confidential communications to attorney) and 5928 (relating to confidential communications to attorney), the attorney work product doctrine, or the rules of professional conduct for attorneys [39].

The Pennsylvania Code states that whenever a person is a mandated reporter in his or her capacity as a member of the staff of a medical or other public or private institution, school, facility, or agency, that person shall report immediately and immediately thereafter notify the person in charge of the institution, school, facility, or agency (or the designated agent) [48]. Upon notification, the person in charge or the designated agent is responsible for facilitating the cooperation of the institution, school, facility, or agency with the investigation of the report.

Not surprisingly, more than three-quarters (80%) of suspected child abuse reports are made by mandated reporters [27]. More specifically, the majority of child abuse reports come from mandated reporters in public/private social services agencies.

THE PROCESS OF REPORTING CHILD ABUSE IN PENNSYLVANIA

In Pennsylvania, mandated reports of potential child abuse (CPS or GPS cases) are made either in writing (through the online portal) or orally to ChildLine. The ChildLine is available seven days per week, 24 hours per day at 800-932-0313 or 412-473-2000. In 2020, ChildLine answered 163,215 calls, including suspected child abuse cases, referrals for GPS, and inquiries for general information to services [27]. Electronic submission of suspected child abuse reports may be made in lieu of calling ChildLine.

All mandated reporters who report via telephone shall also make a written report, which may be submitted electronically, within 48 hours [51]. The written reports are made through the Child Welfare Information Solution (CWIS) Portal, available online at https://www.compass.state.pa.us/cwis. The written report will include all of the following information, if known [55]:

- The names and addresses of the child, the child's parents, and any other person responsible for the child's welfare
- Where the suspected abuse occurred
- The age and sex of each subject of the report

- The nature and extent of the suspected child abuse, including any evidence of prior abuse to the child or any sibling of the child
- The name and relationship of each individual responsible for causing the suspected abuse and any evidence of prior abuse by each individual
- Family composition
- The source of the report
- The name, telephone number, and e-mail address of the person making the report
- The actions taken by the person making the report, including collection of evidence, protective custody, or admission to hospital
- Any other information required by federal law or regulation
- Any other information that the department requires by regulation

According to Pennsylvania law, a person or official required to report cases of suspected child abuse may take or request photographs of the child who is subject to a report and, if clinically indicated, request a radiologic examination and other medical tests on the child [56]. If completed, medical summaries or reports of the photographs, x-rays, and relevant medical tests should be sent along with the written report or within 48 hours after a report is made electronically.

Mandated reporters must identify themselves when reporting [54]. However, their names are usually not released; only the Secretary of the Department of Human Services has this authority. If a mandated reporter so chooses, he/she can sign a consent form that gives consent to have his/her name released [54].

A specialist at ChildLine will interview the caller to determine what the next step should be. This includes assessing if the report will be forwarded to a county agency for investigation as CPS or GPS; if a report should be forward directly to law enforcement officials; or if the caller will be referred to local services [53].

For both GPS and CPS cases, the appropriate county agency is contacted immediately [35]. The county agency is then responsible for its investigation, completing both a "risk assessment" and a "safety assessment." In CPS cases, the agency sees and evaluates the child within 24 hours of receiving the report. The primary goal of the evaluations are to assess the nature and extent of the abuse reported; to evaluate the level of risk or harm if the child were to stay in the current living situation; and to determine action(s) needed to ensure the child's safety [53].

A GPS referral will be assessed for any further needs, and appropriate referrals for services may be made for the child and family. If it is a CPS case, further investigation will be conducted. During the investigation, the agency may take photographs of the child and his/her injuries for the files. All investigations must be completed within 30 days from the date the report is taken at ChildLine [27]. Mandated reporters have a right to know of the findings of the investigation and the services provided to the child and may follow the case [33].

PROTECTIONS FOR REPORTERS

Reporters are afforded protections after reporting a suspected incidence of child abuse. Any person or institution who, in good faith, makes a report of child abuse, cooperates with a child abuse investigation, or testifies in a child abuse proceeding is considered immune from civil and criminal liability [44]. Mandated reporters who make a report in good faith and then later face discrimination in their workplace can take legal action [44]. For the most part, the reporter's identity is kept confidential. If a case is referred to law enforcement, then the name of the reporter must be given upon request; however, reporters are treated as confidential informants [49].

PENALTIES FOR FAILURE TO REPORT

According to Pennsylvania statutes, a person or official required to report a case of suspected child abuse or to make a referral to the appropriate authorities who willfully fails to do so commits a misdemeanor of the third degree for the first violation and a misdemeanor of the second degree for a second or subsequent violation [44; 54]. An offense is a felony of the third degree if all three of the following are true:

- The person or official willfully fails to report.
- The child abuse constitutes a felony of the first degree or higher.
- The person or official has direct knowledge of the nature of the abuse.

A person who commits a second or subsequent offense commits a felony of the third degree, except if the child abuse constitutes a felony of the first degree or higher, in which case the penalty for the second or subsequent offenses is a felony of the second degree. In addition, if a person's willful failure continues while the person knows or has reasonable cause to believe the child is actively being subjected to child abuse, the person commits a misdemeanor of the first degree; if the child abuse constitutes a felony of the first degree or higher, the person commits a felony of the third degree [44; 54].

BARRIERS TO REPORTING

Studies have shown that many professionals who are mandated to report child abuse and neglect are concerned and/or anxious about reporting. Identified barriers to reporting include [29; 30; 31; 40]:

- Professionals may not feel skilled in their knowledge base about child abuse and neglect. In addition, they lack the confidence to identify sexual and emotional abuse.
- Professionals may be frustrated with how little they can do about poverty, unemployment, drug use, and the intergenerational nature of abuse.
- Although professionals understand their legal obligation, they may still feel that they are violating patient confidentiality.
- Many professionals are skeptical about the effectiveness of reporting child abuse cases given the bureaucracy of the child welfare system.
- Practitioners may be concerned that they do not have adequate or sufficient evidence of child abuse.
- Practitioners may have a belief that government entities do not have the right to get involved in matters within the family.
- There may be some confusion and emotional distress in the reporting process.
- Practitioners may fear that reporting will negatively impact the therapeutic relationship.
- Some professionals have concerns that there might be negative repercussions against the child by the perpetrator.
- Some simply underestimate the seriousness and risk of the situation and may make excuses for the parents.

When interviewing children whose first language is not English, it is highly recommended that they be interviewed through the use of an interpreter. It can cause additional stress for children who struggle to find the right words in English, which can result in more feelings of fear, disempowerment, and voicelessness [41].

CASE SCENARIOS

In the following case scenarios, consider if the case should be reported as possible child abuse in accordance with Pennsylvania law.

A young girl, 2 years of age, is brought to the emergency department by her mother and stepfather for a scalp laceration. The girl is very quiet and appears listless and out of sorts. Her mother reports that she was injured when she fell onto a rock outside, but that the injury occurred when the girl was being watched by the stepfather. The girl undergoes assessment for traumatic brain injury, including assessment of function using the modified Glasgow Coma Score. The toddler is found to have mild impairment (a score of 13), and the follow-up test two hours later indicates normal functioning. The nurse notices that the toddler appears to be afraid of the stepfather, leaning away and crying when he is near her. The stepfather also appears to be easily frustrated with the child, saying that he does not know why she cries so much.

A boy, 13 years of age, is undergoing a routine physical exam with his family physician. The physician asks the boy if he is excited to start school in the next few weeks and how his baseball team is doing. The boy becomes quiet and states that he is nervous about an upcoming trip with his baseball team but does not give additional information. When asked directly, the boy says that he is uncomfortable with the new assistant coach, who watches pornography with them during out-of-town tournaments and supplies them with pornographic magazines. However, the boy states that he doesn't think it's a big deal and that "all of the other kids seem to really like it."

CONCLUSION

Child abuse and neglect are considered significant social problems with deleterious consequences. As noted, a system has been implemented in all 50 states to ensure the safety of children, with laws defining what constitutes abuse and neglect and who is mandated to report. Healthcare professionals, regardless of their discipline or field, are in a unique position to assist in the identification, education, and prevention of child abuse and neglect.

It is the duty of all mandated reporters in the state of Pennsylvania to know their responsibilities and the laws that govern the reporting process. All reporters should adhere to the established laws and rules that govern child abuse reporting, taking into account the expanded definition of perpetrator, the updated processes in place for reporting cases of suspected child abuse, and the delineated roles of mandated reporters. Doing so will help ensure the safety of millions of children in Pennsylvania.

RESOURCES

ChildLine: Pennsylvania Child Abuse Hotline
1-800-932-0313
https://www.dhs.pa.gov/keepkidssafe

Child Welfare Information Gateway
330 C Street SW
Washington, DC 20201
1-800-394-3366
To report abuse: 1-800-422-4453
https://www.childwelfare.gov

Child Welfare League of America
727 15th Street NW, 12th Floor
Washington, DC 20005
202-688-4200
https://www.cwla.org

National Council on Child Abuse and Family Violence
P.O. Box 5222
Arlington, VA 22205
202-429-6695
https://www.preventfamilyviolence.org

Pennsylvania Chapter of Children's Advocacy Centers and Multidisciplinary Teams
P.O. Box 3323
Erie, PA 16508
814-431-8151
https://penncac.org

Pennsylvania Child Welfare Information Solution
877-343-0494
https://www.compass.state.pa.us/cwis

Pennsylvania Department of Human Services
P.O. Box 2675
Harrisburg, PA 17105
1-800-692-7462
https://www.dhs.pa.gov

University of Pittsburgh, Pennsylvania Child Welfare Resource Center
403 East Winding Hill Road
Mechanicsburg, PA 17055
717-795-9048
http://www.pacwrc.pitt.edu

FACULTY

Alice Yick Flanagan, PhD, MSW, received her Master's in Social Work from Columbia University, School of Social Work. She has clinical experience in mental health in correctional settings, psychiatric hospitals, and community health centers. In 1997, she received her PhD from UCLA, School of Public Policy and Social Research. Dr. Yick Flanagan completed a year-long post-doctoral fellowship at Hunter College, School of Social Work in 1999. In that year she taught the course Research Methods and Violence Against Women to Masters degree students, as well as conducting qualitative research studies on death and dying in Chinese American families.

Previously acting as a faculty member at Capella University and Northcentral University, Dr. Yick Flanagan is currently a contributing faculty member at Walden University, School of Social Work, and a dissertation chair at Grand Canyon University, College of Doctoral Studies, working with Industrial Organizational Psychology doctoral students. She also serves as a consultant/subject matter expert for the New York City Board of Education and publishing companies for online curriculum development, developing practice MCAT questions in the area of psychology and sociology. Her research focus is on the area of culture and mental health in ethnic minority communities.

Customer Information, Answer Sheet, and Evaluation located on pages 131–136.

TEST QUESTIONS

#97542 CHILD ABUSE IDENTIFICATION AND REPORTING: THE PENNSYLVANIA REQUIREMENT

This is an open book test. Please record your responses on the Answer Sheet.
A passing grade of at least 80% must be achieved in order to receive credit for this course.

This 3 hour activity must be completed by July 31, 2025.

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1. The first child abuse case in the United States that garnered widespread interest involved Mary Ellen Wilson, a foster child in New York City. This case took place in
- *A) 1790.*
- *B) 1866.*
- *C) 1921.*
- *D) 1965.*

2. How is the child welfare system in Pennsylvania characterized?
- *A) It is monitored by CAPTA.*
- *B) The child welfare system is founded on the criminal justice model.*
- *C) It is supervised by the state and administered by the various local county agencies.*
- *D) It is supervised by each respective local county agency and administered by the federal government.*

3. Child abuse is defined at the federal level by the
- *A) Child Protective Services.*
- *B) Office of Child and Family Welfare.*
- *C) Child Abuse Prevention and Treatment Act.*
- *D) National Council on Child Abuse and Family Violence.*

4. Which of the following injuries is NOT considered a possible indicator of physical abuse?
- *A) Patterned burns*
- *B) Bruises on multiple body areas*
- *C) Abrasions to the knees and elbows*
- *D) Multiple or spiral fractures at various stages of healing*

5. Child sexual abuse is categorized as exhibitionism if the act involves
- *A) obscene phone calls.*
- *B) forcing a child to observe sexual acts.*
- *C) watching a child get dressed or undressed.*
- *D) touching, fondling, or kissing the child in a provocative manner.*

6. How many substantiated cases of child abuse occurred in Pennsylvania in 2020?
- *A) 280*
- *B) 1,967*
- *C) 4,593*
- *D) 26,944*

7. Patient A, a child 10 years of age, arrives at the emergency department with a burn. Upon intake, a registered nurse notices that the burn on the child's thigh resembles the face of an iron. In addition, the child has bruising on her upper arm. The nurse suspects abuse and therefore calls the toll-free number for mandated reporters to report the case. Which of the following steps must the nurse take following the call?
- *A) This nurse must report the suspected abuse in writing within 48 hours.*
- *B) The nurse must contact a physician for a complete evaluation of the child, including assessment for sexual abuse.*
- *C) The nurse should call a legal aid society to ask for a lawyer to represent her in the event he/she is held liable if the case is not substantiated.*
- *D) This nurse should inform the mother that he/she will be contacting the appropriate agencies regarding suspected child abuse and maltreatment.*

Test questions continue on next page ➔

8. **When making a written report of suspected child abuse, the mandated reporter may be asked for**
   A) *family composition.*
   B) *photographs of the injuries, if available.*
   C) *the location where the suspected abuse occurred.*
   D) *All of the above*

9. **The identity of the individual who reported a child abuse incident is NOT kept confidential if**
   A) *the report is substantiated.*
   B) *the incident is reported to law enforcement officials.*
   C) *the intake specialist determines that the incident falls under general protective services.*
   D) *the individual who reported the incident is determined to not have made the call in good faith.*

10. **A failure to report suspected child abuse by a mandated reporter is considered a felony of the third degree if**
    A) *the person willfully fails to report.*
    B) *the child abuse constitutes a felony of the first degree or higher.*
    C) *the person has direct knowledge of the nature of the abuse.*
    D) *All of the above*

Be sure to transfer your answers to the Answer Sheet located on page 132.
DO NOT send these test pages to NetCE. Retain them for your records.
PLEASE NOTE: Your postmark or facsimile date will be used as your test completion date.

Implicit Bias in Health Care

This course meets the Pennsylvania requirement for 3 hours of ethics education.

Audience
This course is designed for the interprofessional healthcare team and professions working in all practice settings.

Course Objective
The purpose of this course is to provide healthcare professionals with an overview of the impact of implicit biases on clinical interactions and decision making.

Learning Objectives
Upon completion of this course, you should be able to:

1. Define implicit and explicit biases and related terminology.
2. Evaluate the strengths and limitations of the Implicit Association Test.
3. Describe how different theories explain the nature of implicit biases, and outline the consequences of implicit biases.
4. Discuss strategies to raise awareness of and mitigate or eliminate one's implicit biases.

Faculty
Alice Yick Flanagan, PhD, MSW, received her Master's in Social Work from Columbia University, School of Social Work. She has clinical experience in mental health in correctional settings, psychiatric hospitals, and community health centers. In 1997, she received her PhD from UCLA, School of Public Policy and Social Research. Dr. Yick Flanagan completed a year-long post-doctoral fellowship at Hunter College, School of Social Work in 1999. In that year she taught the course Research Methods and Violence Against Women to Masters degree students, as well as conducting qualitative research studies on death and dying in Chinese American families. (A complete biography appears at the end of this course.)

Faculty Disclosure
Contributing faculty, Alice Yick Flanagan, PhD, MSW, has disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

Division Planners
Jane C. Norman, RN, MSN, CNE, PhD
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Director of Development and Academic Affairs
Sarah Campbell

Division Planners/Director Disclosure
The division planners and director have disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

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As a Jointly Accredited Organization, NetCE is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. State and provincial regulatory boards have the final authority to determine whether an individual course may be accepted for continuing education credit. NetCE maintains responsibility for this course.

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Designations of Credit
Social Workers participating in this intermediate to advanced course will receive 3 Clinical continuing education clock hours.

NetCE designates this continuing education activity for 3 CE credits.

NetCE designates this continuing education activity for 1.5 NBCC clock hours.

Individual State Behavioral Health Approvals
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About the Sponsor
The purpose of NetCE is to provide challenging curricula to assist healthcare professionals to raise their levels of expertise while fulfilling their continuing education requirements, thereby improving the quality of healthcare.

Our contributing faculty members have taken care to ensure that the information and recommendations are accurate and compatible with the standards generally accepted at the time of publication. The publisher disclaims any liability, loss or damage incurred as a consequence, directly or indirectly, of the use and application of any of the contents. Participants are cautioned about the potential risk of using limited knowledge when integrating new techniques into practice.

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INTRODUCTION

In the 1990s, social psychologists Dr. Mahzarin Banaji and Dr. Tony Greenwald introduced the concept of implicit bias and developed the Implicit Association Test (IAT) as a measure. In 2003, the Institute of Medicine published the report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* highlighting the role of health professionals' implicit biases in the development of health disparities [1]. The phenomenon of implicit bias is premised on the assumption that while well-meaning individuals may deny prejudicial beliefs, these implicit biases negatively affect their clinical communications, interactions, and diagnostic and treatment decision-making [2; 3].

One explanation is that implicit biases are a heuristic, or a cognitive or mental shortcut. Heuristics offer individuals general rules to apply to situations in which there is limited, conflicting, or unclear information. Use of a heuristic results in a quick judgment based on fragments of memory and knowledge, and therefore, the decisions made may be erroneous. If the thinking patterns are flawed, negative attitudes can reinforce stereotypes [4]. In health contexts, this is problematic because clinical judgments can be biased and adversely affect health outcomes. The Joint Commission provides the following example [3]: A group of physicians congregate to examine a child's x-rays but has not been able to reach a diagnostic consensus. Another physician with no knowledge of the case is passing by, sees the x-rays, and says "Cystic fibrosis." The group of physicians was aware that the child is African American and had dismissed cystic fibrosis because it is less common among Black children than White children.

The purpose of this course is to provide health professionals an overview of implicit bias. This includes an exploration of definitions of implicit and explicit bias. The nature and dynamics of implicit biases and how they can affect health outcomes will be discussed. Finally, because implicit biases are unconscious, strategies will be reviewed to assist in raising professionals' awareness of and interventions to reduce them.

DEFINITIONS OF IMPLICIT BIAS AND OTHER TERMINOLOGIES

IMPLICIT VS. EXPLICIT BIAS

In a sociocultural context, biases are generally defined as negative evaluations of a particular social group relative to another group. Explicit biases are conscious, whereby an individual is fully aware of his/her attitudes and there may be intentional behaviors related to these attitudes [5]. For

example, an individual may openly endorse a belief that women are weak and men are strong. This bias is fully conscious and is made explicitly known. The individual's ideas may then be reflected in his/her work as a manager.

FitzGerald and Hurst assert that there are cases in which implicit cognitive processes are involved in biases and conscious availability, controllability, and mental resources are not [6]. The term "implicit bias" refers to the unconscious attitudes and evaluations held by individuals. These individuals do not necessarily endorse the bias, but the embedded beliefs/attitudes can negatively affect their behaviors [2; 7; 8; 9]. Some have asserted that the cognitive processes that dictate implicit and explicit biases are separate and independent [9].

Implicit biases can start as early as 3 years of age. As children age, they may begin to become more egalitarian in what they explicitly endorse, but their implicit biases may not necessarily change in accordance to these outward expressions [10]. Because implicit biases occur on the subconscious or unconscious level, particular social attributes (e.g., skin color) can quietly and insidiously affect perceptions and behaviors [11]. According to Georgetown University's National Center on Cultural Competency, social characteristics that can trigger implicit biases include [12]:

- Age
- Disability
- Education
- English language proficiency and fluency
- Ethnicity
- Health status
- Disease/diagnosis (e.g., HIV/AIDS)
- Insurance
- Obesity
- Race
- Socioeconomic status
- Sexual orientation, gender identity, or gender expression
- Skin tone
- Substance use

An alternative way of conceptualizing implicit bias is that an unconscious evaluation is only negative if it has further adverse consequences on a group that is already disadvantaged or produces inequities [6; 13]. Disadvantaged groups are marginalized in the healthcare system and vulnerable on multiple levels; health professionals' implicit biases can further exacerbate these existing disadvantages [13].

When the concept of implicit bias was introduced in the 1990s, it was thought that implicit biases could be directly linked to behavior. Despite the decades of empirical research, many questions, controversies, and debates remain about the dynamics and pathways of implicit biases [2].

OTHER COMMON TERMINOLOGIES

In addition to understanding implicit and explicit bias, there is additional terminology related to these concepts that requires specific definition.

Cultural Competence

Cultural competence is broadly defined as practitioners' knowledge of and ability to apply cultural information and appreciation of a different group's cultural and belief systems to their work [14]. It is a dynamic process, meaning that there is no endpoint to the journey to becoming culturally aware, sensitive, and competent. Some have argued that cultural curiosity is a vital aspect of this approach.

Cultural Humility

Cultural humility refers to an attitude of humbleness, acknowledging one's limitations in the cultural knowledge of groups. Practitioners who apply cultural humility readily concede that they are not experts in others' cultures and that there are aspects of culture and social experiences that they do not know. From this perspective, patients are considered teachers of the cultural norms, beliefs, and value systems of their group, while practitioners are the learners [15]. Cultural humility is a lifelong process involving reflexivity, self-evaluation, and self-critique [16].

Discrimination

Discrimination has traditionally been viewed as the outcome of prejudice [17]. It encompasses overt or hidden actions, behaviors, or practices of members in a dominant group against members of a subordinate group [18]. Discrimination has also been further categorized as lifetime discrimination, which consists of major discreet discriminatory events, or everyday discrimination, which is subtle, continual, and part of day-to-day life and can have a cumulate effect on individuals [19].

Diversity

Diversity "encompasses differences in and among societal groups based on race, ethnicity, gender, age, physical/mental abilities, religion, sexual orientation, and other distinguishing characteristics" [20]. Diversity is often conceptualized into singular dimensions as opposed to multiple and intersecting diversity factors [21].

Intersectionality

Intersectionality is a term to describe the multiple facets of identity, including race, gender, sexual orientation, religion, sex, and age. These facets are not mutually exclusive, and the meanings that are ascribed to these identities are interrelated and interact to create a whole [22].

Prejudice

Prejudice is a generally negative feeling, attitude, or stereotype against members of a group [23]. It is important not to equate prejudice and racism, although the two concepts are related. All humans have prejudices, but not all individuals are racist. The popular definition is that "prejudice plus power equals racism" [23]. Prejudice stems from the process of ascribing every member of a group with the same attribute [24].

Race

Race is linked to biology. Race is partially defined by physical markers (e.g., skin or hair color) and is generally used as a mechanism for classification [25]. It does not refer to cultural institutions or patterns. In modern history, skin color has been used to classify people and to imply that there are distinct biologic differences within human populations [26]. Historically, the U.S. Census has defined race according to ancestry and blood quantum; today, it is based on self-classification [26].

There are scholars who assert that race is socially constructed without any biological component [27]. For example, racial characteristics are also assigned based on differential power and privilege, lending to different statuses among groups [28].

Racism

Racism is the "systematic subordination of members of targeted racial groups who have relatively little social power…by members of the agent racial group who have relatively more social power" [29]. Racism is perpetuated and reinforced by social values, norms, and institutions.

There is some controversy regarding whether unconscious (implicit) racism exists. Experts assert that images embedded in our unconscious are the result of socialization and personal observations, and negative attributes may be unconsciously applied to racial minority groups [30]. These implicit attributes affect individuals' thoughts and behaviors without a conscious awareness.

Structural racism refers to the laws, policies, and institutional norms and ideologies that systematically reinforce inequities resulting in differential access to services such as health care, education, employment, and housing for racial and ethnic minorities [31; 32].

MEASUREMENT OF IMPLICIT BIAS: A FOCUS ON THE IAT

Project Implicit is a research project sponsored by Harvard University and devoted to the study and monitoring of implicit biases. It houses the Implicit Association Test (IAT), which is one of the most widely utilized standardized instruments to measure implicit biases. The IAT is based on the premise that implicit bias is an objective and discreet phenomenon that can be measured in a quantitative manner. Developed and first introduced in 1998, it is an online test that assesses implicit bias by measuring how quickly people make associations between targeted categories with a list of adjectives [33]. For example, research participants might be assessed for their implicit biases by seeing how rapidly they make evaluations among the two groups/categories career/family and male/female. Participants tend to more easily affiliate terms for which they hold implicit or explicit biases. So, unconscious biases are measured by how quickly research participants respond to stereotypical pairings (e.g., career/male and family/female). The larger the difference between the individual's performance between the two groups, the stronger the degree of bias [34; 35]. Since 2006, more than 4.6 million individuals have taken the IAT, and results indicate that the general population holds implicit biases [3].

interactive activity

Visit https://implicit.harvard.edu/implicit and complete an assessment. Does it reflect your perception of your own biases? Did you learn anything about yourself?

Measuring implicit bias is complex, because it requires an instrument that is able to access underlying unconscious processes. While many of the studies on implicit biases have employed the IAT, there are other measures available. They fall into three general categories: the IAT and its variants, priming methods, and miscellaneous measures, such as self-report, role-playing, and computer mouse movements [36]. This course will focus on the IAT, as it is the most commonly employed instrument.

The IAT is not without controversy. One of the debates involves whether IAT scores focus on a cognitive state or if they reflect a personality trait. If it is the latter, the IAT's value as a diagnostic screening tool is diminished [37]. There is also concern with its validity in specific arenas, including jury selection and hiring [37]. Some also maintain that the IAT is sensitive to social context and may not accurately predict behavior [37]. Essentially, a high IAT score reflecting implicit biases does not necessarily link to discriminating behaviors, and correlation should not imply causation. A meta-analysis involving 87,418 research participants found no evidence that changes in implicit biases affected explicit behaviors [38].

EXTENT OF IMPLICIT BIASES AND RISK FACTORS

Among the more than 4 million participants who have completed the IAT, individuals generally exhibited implicit preference for White faces over Black or Asian faces. They also held biases for light skin over dark skin, heterosexual over gender and sexual minorities (LGBTQ+), and young over old [39]. The Pew Research Center also conducted an exploratory study on implicit biases, focusing on the extent to which individuals adhered to implicit racial biases [40]. A total of 2,517 IATs were completed and used for the analysis. Almost 75% of the respondents exhibited some level of implicit racial biases. Only 20% to 30% did not exhibit or showed very little implicit bias against the minority racial groups tested. Approximately half of all single-race White individuals displayed an implicit preference for White faces over Black faces. For single-race Black individuals, 45% had implicit preference for their own group. For biracial White/Black adults, 23% were neutral. In addition, 22% of biracial White/Asian participants had no or minimal implicit racial biases. However, 42% of the White/Black biracial adults leaned toward a pro-White bias.

In another interesting field experiment, although not specifically examining implicit bias, resumes with names commonly associated with African American or White candidates were submitted to hiring officers [41]. Researchers found that resumes with White-sounding names were 50% more likely to receive callbacks than resumes with African American-sounding names [41]. The underlying causes of this gap were not explored.

Implicit bias related to sex and gender is also significant. A survey of emergency medicine and obstetrics/gynecology residency programs in the United States sought to examine the relationship between biases related to perceptions of leadership and gender [42]. In general, residents in both programs (regardless of gender) tended to favor men as leaders. Male residents had greater implicit biases compared with their female counterparts.

Other forms of implicit bias can affect the provision of health and mental health care. One online survey examining anti-fat biases was provided to 4,732 first-year medical students [43]. Respondents completed the IAT, two measures of explicit bias, and an anti-fat attitudes instrument. Nearly 75% of the respondents were found to hold implicit anti-fat biases. Interestingly, these biases were comparable to the scope of implicit racial biases. Male sex, non-Black race, and lower body mass index (BMI) predicted holding these implicit biases.

Certain conditions or environmental risk factors are associated with an increased risk for certain implicit biases, including [44; 45]:

- Stressful emotional states (e.g., anger, frustration)
- Uncertainty
- Low-effort cognitive processing
- Time pressure
- Lack of feedback
- Feeling behind with work
- Lack of guidance
- Long hours
- Overcrowding
- High-crises environments
- Mentally taxing tasks
- Juggling competing tasks

THEORETIC EXPLANATIONS AND CONTROVERSIES

A variety of theoretical frameworks have been used to explore the causes, nature, and dynamics of implicit biases. Each of the theories is described in depth, with space given to explore controversies and debates about the etiology of implicit bias.

SOCIAL PSYCHOLOGICAL AND COGNITIVE THEORETICAL FRAMEWORKS

One of the main goals of social psychology is to understand how attitudes and belief structures influence behaviors. Based on frameworks from both social and cognitive psychology, many theoretical frameworks used to explain implicit bias revolve around the concept of social cognition. One branch of cognitive theory focuses on the role of implicit or nondeclarative memory. Experts believe that this type of memory allows certain behaviors to be performed with very little conscious awareness or active thought. Examples include tooth brushing, tying shoelaces, and even driving. To take this concept one step farther, implicit memories may also underlie social attitudes and stereotype attributions [46].

This is referred to as implicit social cognition. From this perspective, implicit biases are automatic expressions based on belonging to certain social groups [47]. The IAT is premised on the role of implicit memory and past experiences in predicting behavior without explicit memory triggering [48].

Another branch of cognitive theory used to describe implicit biases involves heuristics. When quick decisions are required under conditions of uncertainty or fatigue, and/or when there is a tremendous amount of information to assimilate without sufficient time to process, decision-makers resort to heuristics [49]. Heuristics are essentially mental short cuts that facilitate (usually unconscious) rules that promote automatic processing [50]. However, these rules can also be influenced by socialization factors, which could then affect any unconscious or latent cognitive associations about power, advantage, and privilege. Family, friends, media, school, religion, and other social institutions all play a role in developing and perpetuating implicit and explicit stereotypes, and cognitive evaluations can be primed or triggered by an environmental cue or experience [51]. When a heuristic is activated, an implicit memory or bias may be triggered simultaneously [47]. This is also known as the dual-process model of information processing [50].

BEHAVIORAL OR FUNCTIONAL PERSPECTIVES

Behavioral or functional theorists argue that implicit bias is not necessarily a latent or unconscious cognitive structure. Instead, this perspective recognizes implicit bias as a group-based behavior [52]. Behavior is biased if it is influenced by social cues indicating the social group to which someone belongs [52]. Social cues can occur rapidly and unintentionally, which ultimately leads to automatic or implicit effects on behavior. The appeal of a behavioral or functional approach to implicit bias is that it is amoral; that is, it is value- and judgment-free [52]. Rather than viewing implicit bias as an invisible force (i.e., unconscious cognitive structure), it is considered a normal behavior [53].

NEUROSCIENTIFIC PERSPECTIVES

Implicit bias has neuroscientific roots as well and has been linked to functions of the amygdala [2; 54]. The amygdala is located in the temporal lobe of the brain, and it communicates with the hypothalamus and plays a large role in memory. When situations are emotionally charged, the amygdala is activated and connects the event to memory, which is why individuals tend to have better recall of emotional events. This area of the brain is also implicated in processing fear. Neuroscientific studies on implicit biases typically use functional magnetic resonance imaging (fMRI) to visualize amygdala activation during specific behaviors or events. In experimental studies, when White research subjects were shown photos of Black faces, their amygdala appeared to be more activated compared to when they viewed White faces [55]. This trend toward greater activation when exposed to view the faces of persons whose race differs from the viewer starts in adolescence and appears to increase with age [54]. This speaks to the role of socialization in the developmental process [54].

It may be that the activation of the amygdala is an evolutionary threat response to an outgroup [56]. Another potential explanation is that the activation of the amygdala is due to the fear of appearing prejudiced to others who will disapprove of the bias [56]. The neuroscientific perspective of implicit bias is controversial. While initial empirical studies appear to link implicit bias to amygdala activation, many researchers argue this relationship is too simplistic [2].

STRUCTURAL OR CRITICAL THEORY

Many scholars and policymakers are concerned about the narrow theoretical views that researchers of implicit bias have taken. By focusing on unconscious cognitive structures, social cognition and neuroscientific theories miss the opportunity to also address the role of macro or systemic factors in contributing to health inequities [9; 57]. By focusing on the neurobiology of implicit bias, for example, racism and bias is attributed to central nervous system function, releasing the individual from any control or responsibility. However, the historical legacy of prejudice and bias has roots in economic and structural issues that produce inequities [58]. Larger organizational, institutional, societal, and cultural forces contribute, perpetuate, and reinforce implicit and explicit biases, racism, and discrimination. Psychological and neuroscientific approaches ultimately decontextualize racism [9; 57].

In response to this conflict, a systems-based practice has been proposed [59]. This type of practice emphasizes the role of sociocultural determinants of health outcome and the fact that health inequities stem from larger systemic forces. As a result, medical and health education and training should focus on how patients' health and well-being may reflect structural vulnerabilities driven in large part by social, cultural, economic, and institutional forces. Health and mental health professionals also require social change and advocacy skills to ensure that they can effect change at the organizational and institutional levels [59].

Implicit bias is not a new topic; it has been discussed and studied for decades in the empirical literature. Because implicit bias is a complex and multifaceted phenomenon, it is important to recognize that there may be no one single theory that can fully explain its etiology.

CONSEQUENCES OF IMPLICIT BIASES

HEALTH DISPARITIES

Implicit bias has been linked to a variety of health disparities [1]. Health disparities are differences in health status or disease that systematically and adversely affect less advantaged groups [60]. These inequities are often linked to historical and current unequal distribution of resources due to poverty, structural inequities, insufficient access to health care, and/or environmental barriers and threats [61]. Healthy People 2030 defines a health disparity as [62]:

> …a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.

As noted, in 2003, the Institute of Medicine implicated implicit bias in the development and continued health disparities in the United States [1]. Despite progress made to lessen the gaps among different groups, health disparities continue to exist. One example is racial disparities in life expectancy among Black and White individuals in the United States. Life expectancy for Black men is 4.4 years lower than White men; for Black women, it is 2.9 years lower compared with White women [63]. Hypertension, diabetes, and obesity are more prevalent in non-Hispanic Black populations compared with non-Hispanic White groups (25%, 49%, and 59% higher, respectively) [64]. In one study, African American and Latina women were more likely to experience cesarean deliveries than their White counterparts, even after controlling for medically necessary procedures [65]. This places African American and Latina women at greater risk of infection and maternal mortality.

Gender health disparities have also been demonstrated. Generally, self-rated physical health (considered one of the best proxies to health) is poorer among women than men. Depression is also more common among women than men [66]. Lesbian and bisexual women report higher rates of depression and are more likely than non-gay women to engage risk behaviors such as smoking and binge drinking, perhaps as a result of LGBTQ+-related stressors. They are also less likely to access healthcare services [67].

Socioeconomic status also affects health care engagement and quality. In a study of patients seeking treatment for thoracic trauma, those without insurance were 1.9 times more likely to die compared with those with private insurance [68].

CLINICAL DECISIONS AND PROVIDER-PATIENT INTERACTIONS

In an ideal situation, health professionals would be explicitly and implicitly objective and clinical decisions would be completely free of bias. However, healthcare providers have implicit (and explicit) biases at a rate comparable to that of the general population [6; 69]. It is possible that these implicit biases shape healthcare professionals' behaviors, communications, and interactions, which may produce differences in help-seeking, diagnoses, and ultimately treatments and interventions [69]. They may also unwittingly produce professional behaviors, attitudes, and interactions that reduce patients' trust and comfort with their provider, leading to earlier termination of visits and/or reduced adherence and follow-up [7].

In a landmark 2007 study, a total of 287 internal medicine physicians and medical residents were randomized to receive a case vignette of an either Black or White patient with coronary artery disease [70]. All participants were also administered the IAT. When asked about perceived level of cooperativeness of the White or Black patient from the vignette, there were no differences in their explicit statements regarding cooperativeness. Yet, the IAT scores did show differences, with scores showing that physicians and residents had implicit preferences for the White patients. Participants with greater implicit preference for White patients (as reflected by IAT score) were more likely to select thrombolysis to treat the White patient than the Black patient [70]. This led to the possible conclusion that implicit racial bias can influence clinical decisions regarding treatment and may contribute to racial health disparities. However, some argue that using vignettes depicting hypothetical situations does not accurately reflect real-life conditions that require rapid decision-making under stress and uncertainty.

PATIENTS' PERCEPTIONS OF CARE

It has been hypothesized that providers' levels of bias affect the ratings of patient-centered care [34]. Patient-centered care has been defined as patients' positive ratings in the areas of perception of provider concern, provider answering patients' questions, provider integrity, and provider knowledge of the patient. Using data from 134 health providers who completed the IAT, a total of 2,908 diverse racial and ethnic minority patients participated in a telephone survey.

Researchers found that for providers who scored high on levels of implicit bias, African American patients' ratings for all dimensions of patient-centered care were low compared with their White patient counterparts. Latinx patient ratings were low regardless of level of implicit bias.

A 2013 study recorded clinical interactions between 112 low-income African American patients and their 14 non-African American physicians for approximately two years [71]. Providers' implicit biases were also assessed using the IAT. In general, the physicians talked more than the patients; however, physicians with higher implicit bias scores also had a higher ratio of physician-to-patient talk time. Patients with higher levels of perceived discrimination had a lower ratio of physician-to-patient talk time (i.e., spoke more than those with lower reported perceived discrimination). A lower ratio of physician-patient talk time correlated to decreased likelihood of adherence.

Another study assessed 40 primary care physicians and 269 patients [72]. The IAT was administered to both groups, and their interactions were recorded and observed for verbal dominance (defined as the time of physician participation relative to patient participation). When physicians scored higher on measures of implicit bias, there was 9% more verbal dominance on the part of the physicians in the visits with Black patients and 11% greater in interactions with White patients. Physicians with higher implicit bias scores and lower verbal dominance also received lower scores on patient ratings on interpersonal care, particularly from Black patients [72].

In focus groups with racially and ethnically diverse patients who sought medical care for themselves or their children in New York City, participants reported perceptions of discrimination in health care [73]. They reported that healthcare professionals often made them feel less than human, with varying amounts of respect and courtesy. Some observed differences in treatment compared with White patients. One Black woman reported [73]:

> When the doctor came in [after a surgery], she proceeded to show me how I had to get up because I'm being released that day "whether I like it or not"… She yanked the first snap on the left leg…So I'm thinking, 'I'm human!' And she was courteous to the White lady [in the next bed], and I've got just as much age as her. I qualify on the level and scale of human being as her, but I didn't feel that from the doctor.

Another participant was a Latino physician who presented to the emergency department. He described the following [73]:

> They put me sort of in the corner [in the emergency department] and I can't talk very well because I can't breathe so well. The nurse comes over to me and actually says, "Tu tiene tu Medicaid?" I whispered out, "I'm a doctor…and I have insurance." I said it in perfect English. Literally, the color on her face went completely white…Within two minutes there was an orthopedic team around me…I kept wondering about what if I hadn't been a doctor, you know? Pretty eye opening and very sad.

These reports are illustrative of many minority patients' experiences with implicit and explicit racial/ethnic biases. Not surprisingly, these biases adversely affect patients' views of their clinical interactions with providers and ultimately contribute to their mistrust of the healthcare system.

DEVELOPMENTAL MODEL TO RECOGNIZING AND REDUCING IMPLICIT BIAS

There are no easy answers to raising awareness and reducing health providers' implicit bias. Each provider may be in a different developmental stage in terms of awareness, understanding, acceptance, and application of implicit bias to their practice. A developmental model for intercultural sensitivity training has been established to help identify where individuals may be in this developmental journey [74; 75]. It is important to recognize that the process of becoming more self-aware is fluid; reaching one stage does not necessarily mean that it is "conquered" or that there will not be additional work to do in that stage. As a dynamic process, it is possible to move back and forth as stress and uncertainty triggers implicit biases [74]. This developmental model includes six stages:

- Denial: In this stage, the individual has no awareness of the existence of cultural differences between oneself and members of other cultural groups and subgroups. Individuals in this stage have no awareness of implicit bias and cannot distinguish between explicit and implicit biases.
- Defense: In this stage, the person may accept that implicit biases exist but does not acknowledge that implicit biases exist within themselves.

- Minimization: An individual in this stage acknowledges that implicit biases may exist in their colleagues and possibly themselves. However, he or she is uncertain of their consequences and adverse effects. Furthermore, the person believes he or she is able to treat patients in an objective manner.
- Acceptance: In the acceptance stage, the individual recognizes and acknowledges the role of implicit biases and how implicit biases influence interactions with patients.
- Adaptation: Those in the adaptation stage self-reflect and acknowledge that they have unrecognized implicit biases. Not only is there an acknowledgement of the existence of implicit bias, these people begin to actively work to reduce the potential impact of implicit biases on interactions with patients.
- Integration: At this stage, the health professional works to incorporate change in their day-to-day practice in order to mitigate the effects of their implicit biases on various levels—from the patient level to the organization level.

CREATING A SAFE ENVIRONMENT

Creating a safe environment is the essential first step to exploring issues related to implicit bias. Discussions of race, stereotypes, privilege, and implicit bias, all of which are very complex, can be volatile or produce heightened emotions. When individuals do not feel their voices are heard and/or valued, negative emotions or a "fight-or-flight" response can be triggered [76]. This may manifest as yelling, demonstrations of anger, or crying or leaving the room or withdrawing and remaining silent [76].

Creating and fostering a sense of psychological safety in the learning environment is crucial. Psychological safety results when individuals feel that their opinions, views, thoughts, and contributions are valued despite tension, conflict, and discomfort. This allows the individual to feel that their identity is intact [76]. When psychological safety is threatened, individuals' energies are primarily expended on coping rather than learning [76]. As such, interventions should not seek to confront individuals or make them feel guilty and/or responsible [77].

When implicit bias interventions or assessments are planned, facilitators should be open, approachable, non-threatening, and knowledgeable; this will help create a safe and inclusive learning environment [77]. The principles of respect, integrity, and confidentiality should be communicated [77]. Facilitators who demonstrate attunement, authenticity, and power-sharing foster positive and productive dialogues about subjects such as race and identity [76]. Attunement is the capacity of an individual to tacitly comprehend the lived experiences of others, using their perspectives to provide an alternative viewpoint for others. Attunement does not involve requiring others to talk about their experiences if they are not emotionally ready [76]. Authenticity involves being honest and transparent with one's own position in a racialized social structure and sharing one's own experiences, feelings, and views. Being authentic also means being vulnerable [76]. Finally, power-sharing entails redistributing power in the learning environment. The education environment is typically hierarchical, with an expert holding more power than students or participants. Furthermore, other students may hold more power by virtue of being more comfortable speaking/interacting [76]. Ultimately, promoting a safe space lays a foundation for safely and effectively implementing implicit bias awareness and reduction interventions.

STRATEGIES TO PROMOTE AWARENESS OF IMPLICIT BIAS

As discussed, the IAT can be used as a metric to assess professionals' level of implicit bias on a variety of subjects, and this presupposes that implicit bias is a discrete phenomenon that can be measured quantitatively [79]. When providers are aware that implicit biases exist, discussion and education can be implemented to help reduce them and/or their impact.

Another way of facilitating awareness of providers' implicit bias is to ask self-reflective questions about each interaction with patients. Some have suggested using SOAP (subjective, objective, assessment, and plan) notes to assist practitioners in identifying implicit biases in day-to-day interactions with patients [80]. Integrating the following questions into charts and notes can stimulate reflection about implicit bias globally and for each specific patient interaction:

- Did I think about any socioeconomic and/or environmental factors that may contribute to the health and access of this patient?
- How was my communication and interaction with this patient? Did it change from my customary pattern?
- How could my implicit biases influence care for this patient?

When reviewing the SOAP notes, providers can look for recurring themes of stereotypical perceptions, biased communication patterns, and/or types of treatment/interventions proposed and assess whether these themes could be influenced by biases related to race, ethnicity, age, gender, sexuality, or other social characteristics.

A review of empirical studies conducted on the effectiveness of interventions promoting implicit bias awareness found mixed results. At times, after a peer discussion of IAT scores, participants appeared less interested in learning and employing implicit bias reduction interventions. However, other studies have found that receiving feedback along with IAT scores resulted in a reduction in implicit bias [81]. Any feedback, education, and discussions should be structured to minimize participant defensiveness [81].

INTERVENTIONS TO REDUCE IMPLICIT BIASES

Interventions or strategies designed to reduce implicit bias may be further categorized as change-based or control-based [58]. Change-based interventions focus on reducing or changing cognitive associations underlying implicit biases. These interventions might include challenging stereotypes. Conversely, control-based interventions involve reducing the effects of the implicit bias on the individual's behaviors [58]. These strategies include increasing awareness of biased thoughts and responses. The two types of interventions are not mutually exclusive and may be used synergistically.

PERSPECTIVE TAKING

Perspective taking is a strategy of taking on a first-person perspective of a person in order to control one's automatic response toward individuals with certain social characteristics that might trigger implicit biases [82]. The goal is to increase psychological closeness, empathy, and connection with members of the group [4]. Engaging with media that presents a perspective (e.g., watching documentaries, reading an autobiography) can help promote better understanding of the specific group's lives, experiences, and viewpoints. In one study, participants who adopted the first-person perspectives of African Americans had more positive automatic evaluations of the targeted group [83].

interactive activity

Consuming media that presents a viewpoint and life experience different from your own can help minimize implicit biases. Visit the following sites and consider how they might challenge or expand your perception of each group. Internet searches can help identify many more options for various social groups.

Think Out Loud Podcast
Young Black people share their experiences growing up in Portland, Oregon.
https://podcasts.apple.com/us/podcast/young-black-people-share-their-experiences-growing/id274122573?i=1000496652363

George Takei: Growing Up Asian-American
This PBS clip is a brief introduction, and the subject can be further explored in Takei's book *They Called Us Enemy*.
https://www.pbs.org/wnet/pioneers-of-television/video/george-takei-growing-up-asian-american

Seattle Public Library LGBTQ Staff Picks
A reading list including books and films focusing on LGBTQ+ life, culture, history, and politics.
https://www.spl.org/programs-and-services/social-justice/lgbtq/lgbt-staff-picks

EMPATHY INTERVENTIONS

Promoting positive emotions such as empathy and compassion can help reduce implicit biases. This can involve strategies like perspective taking and role playing [77]. In a study examining analgesic prescription disparities, nurses were shown photos of White or African American patients exhibiting pain and were asked to recommend how much pain medication was needed; a control group was not shown photos. Those who were shown images of patients in pain displayed no differences in recommended dosage along racial lines; however, those who did not see the images averaged higher recommended dosages for White patients compared with Black patients [84]. This suggests that professionals' level of empathy (enhanced by seeing the patient in pain) affected prescription recommendations.

In a study of healthcare professionals randomly assigned to an empathy-inducing group or a control group, participants were given the IAT to measure implicit bias prior to and following the intervention. Level of implicit bias among participants in the empathy-inducing group decreased significantly compared with their control group counterparts [85].

INDIVIDUATION

Individuation is an implicit bias reduction intervention that involves obtaining specific information about the individual and relying on personal characteristics instead of stereotypes of the group to which he or she belongs [4; 82]. The key is to concentrate on the person's specific experiences, achievements, personality traits, qualifications, and other personal attributes rather than focusing on gender, race, ethnicity, age, ability, and other social attributes, all of which can activate implicit biases. When providers lack relevant information, they are more likely to fill in data with stereotypes, in some cases unconsciously. Time constraints and job stress increase the likelihood of this occurring [69].

MINDFULNESS

Mindfulness requires stopping oneself and deliberately emptying one's mind of distractions or allowing distractions to drift through one's mind unimpeded, focusing only on the moment; judgment and assumptions are set aside. This approach involves regulating one's emotions, responses, and attention to return to the present moment, which can reduce stress and anxiety [86]. There is evidence that mindfulness can help regulate biological and emotional responses and can have a positive effect on attention and habit formation [4]. A mindfulness activity assists individuals to be more aware of their thoughts and sensations. This focus on deliberation moves the practitioner away from a reliance on instincts, which is the foundation of implicit bias-affected practice [4; 87].

Mindfulness approaches include yoga, meditation, and guided imagery. Additional resources to encourage a mindfulness practice are provided later in this course.

Goldstein has developed the STOP technique as a practical approach to engage in mindfulness in any moment [88]. STOP is an acronym for:

- Stop
- Take a breath
- Observe
- Proceed

interactive activity

Visit the following website to view a short animated video on the STOP technique. After viewing the video, consider how you can incorporate the technique into your work.
https://elishagoldstein.com/short-animated-stop-practice-elisha-goldstein-phd

Mindfulness practice has been explored as a technique to reduce activation or triggering of implicit bias, enhance awareness of and ability to control implicit biases that arise, and increase capacity for compassion and empathy toward patients by reducing stress, exhaustion, and compassion fatigue [89]. One study examined the effectiveness of a loving-kindness meditation practice training in improving implicit bias toward African Americans and unhoused persons. One hundred one non-Black adults were randomized to one of three groups: a six-week loving-kindness mindfulness practice, a six-week loving-kindness discussion, or the waitlist control. The IAT was used to measure implicit biases, and the results showed that the loving-kindness meditation practice decreased levels of implicit biases toward both groups [90].

There is also some novel evidence that mindfulness may have neurologic implications. For example, one study showed decreased amygdala activation after a mindfulness meditation [91]. However, additional studies are required in this area before conclusions can be reached.

COUNTER-STEREOTYPICAL IMAGING

Counter-stereotypical imaging approaches involve presenting an image, idea, or construct that is counter to the oversimplified stereotypes typically held regarding members of a specific group. In one study, participants were asked to imagine either a strong woman (the experimental condition) or a gender-neutral event (the control condition) [92]. Researchers found that participants in the experimental condition exhibited lower levels of implicit gender bias. Similarly, exposure to female leaders was found to reduce implicit gender bias [93]. Whether via increased contact with stigmatized groups to contradict prevailing stereotypes or simply exposure to counter-stereotypical imaging, it is possible to unlearn associations underlying various implicit biases. If the social environment is important in priming positive evaluations, having more positive visual images of members in stigmatized groups can help reduce implicit biases [94]. Some have suggested that even just hanging photos and having computer screensavers reflecting positive images of various social groups could help to reduce negative associations [94].

EFFECTIVENESS OF IMPLICIT BIAS INTERVENTIONS

The effectiveness of implicit bias trainings and interventions has been scrutinized. In a 2019 systematic review, different types of implicit bias reduction interventions were evaluated. A meta-analysis of empirical studies published between May 2005 and April 2015 identified eight different classifications of interventions [13]:

- Engaging with others' perspectives, consciousness-raising, or imagining contact with outgroup: Participants either imagine how the outgroup thinks and feels, imagine having contact with the outgroup, or are made aware of the way the outgroup is marginalized or given new information about the outgroup.
- Identifying the self with the outgroup: Participants perform tasks that lessen barriers between themselves and the outgroup.
- Exposure to counter-stereotypical exemplars: Participants are exposed to exemplars that contradict negative stereotypes of the outgroup.
- Appeal to egalitarian values: Participants are encouraged to activate egalitarian goals or think about multiculturalism, cooperation, or tolerance.
- Evaluative conditioning: Participants perform tasks to strengthen counter-stereotypical associations.
- Inducing emotion: Emotions or moods are induced in participants.
- Intentional strategies to overcome biases: Participants are instructed to implement strategies to over-ride or suppress their biases.
- Pharmacotherapy

Interventions found to be the most effective were, in order from most to least, [13]:

- Intentional strategies to overcome biases
- Exposure to counter-stereotypical exemplars
- Identifying self with the outgroup
- Evaluative conditioning
- Inducing emotions

In general, the sample sizes were small. It is also unclear how generalizable the findings are, given many of the research participants were college psychology students. The 30 studies included in the meta-analysis were cross-sectional (not longitudinal) and only measured short-term outcomes, and there is some concern about "one shot" interventions, given the fact that implicit biases are deeply embedded. Would simply acknowledging the existence of implicit biases be sufficient to eliminate them [95; 96]? Or would such a confession act as an illusion to having self-actualized and moved beyond the bias [95]?

Optimally, implicit bias interventions involve continual practice to address deeply habitual implicit biases or interventions that target structural factors [95; 96].

ROLE OF INTERPROFESSIONAL COLLABORATION AND PRACTICE AND IMPLICIT BIASES

The study of implicit bias is appropriately interdisciplinary, representing social psychology, medicine, health psychology, neuroscience, counseling, mental health, gerontology, LGBTQ+ studies, religious studies, and disability studies [13]. Therefore, implicit bias empirical research and curricula training development lends itself well to interprofessional collaboration and practice (ICP).

One of the core features of IPC is sharing—professionals from different disciplines share their philosophies, values, perspectives, data, and strategies for planning of interventions [97]. IPC also involves the sharing of roles, responsibilities, decision making, and power [98]. Everyone on the team employs their expertise, knowledge, and skills, working collectively on a shared, patient-centered goal or outcome [98; 99].

Another feature of IPC is interdependency. Instead of working in an autonomous manner, each team member's contributions are valued and maximized, which ultimately leads to synergy [97]. At the heart of this are two other key features: mutual trust/respect and communication [99]. In order to share responsibilities, the differing roles and expertise are respected.

Experts have recommended that a structural or critical theoretical perspective be integrated into core competencies in healthcare education to teach students about implicit bias, racism, and health disparities [100]. This includes [100]:

- Values/ethics: The ethical duty for health professionals to partner and collaborate to advocate for the elimination of policies that promote the perpetuation of implicit bias, racism, and health disparities among marginalized populations.
- Roles/responsibilities: One of the primary roles and responsibilities of health professionals is to analyze how institutional and organizational factors promote racism and implicit bias and how these factors contribute to health disparities. This analysis should extend to include one's own position in this structure.
- Interprofessional communication: Ongoing discussions of implicit bias, perspective taking, and counter-stereotypical dialogues should be woven into day-to-day practice with colleagues from diverse disciplines.
- Teams/teamwork: Health professionals should develop meaningful contacts with marginalized communities in order to better understand whom they are serving.

Adopting approaches from the fields of education, gender studies, sociology, psychology, and race/ethnic studies can help build curricula that represent a variety of disciplines [78]. Students can learn about and discuss implicit bias and its impact, not simply from a health outcomes perspective but holistically. Skills in problem-solving, communication, leadership, and teamwork should be included, so students can effect positive social change [78].

CONCLUSION

In the more than three decades since the introduction of the IAT, the implicit bias knowledge base has grown significantly. It is clear that most people in the general population hold implicit biases, and health professionals are no different. While there continue to be controversies regarding the nature, dynamics, and etiology of implicit biases, it should not be ignored as a contributor to health disparities, patient dissatisfaction, and suboptimal care. Given the complex and multifaceted nature of this phenomenon, the solutions to raise individuals' awareness and reduce implicit bias are diverse and evolving.

RESOURCES

American Bar Association
Diversity and Inclusion Center
Toolkits and Projects
https://www.americanbar.org/groups/diversity/resources/toolkits

National Implicit Bias Network
https://implicitbias.net/resources/resources-by-category

The Ohio State University
The Women's Place: Implicit Bias Resources
https://womensplace.osu.edu/resources/implicit-bias-resources

The Ohio State University
Kirwan Institute for the Study of Race and Ethnicity
http://kirwaninstitute.osu.edu

University of California, Los Angeles
Equity, Diversity, and Inclusion: Implicit Bias
https://equity.ucla.edu/know/implicit-bias

University of California, San Francisco,
Office of Diversity and Outreach
Unconscious Bias Resources
https://diversity.ucsf.edu/resources/unconscious-bias-resources

Unconscious Bias Project
https://unconsciousbiasproject.org

MINDFULNESS RESOURCES

University of California, San Diego
Center for Mindfulness
https://medschool.ucsd.edu/som/fmph/research/mindfulness

University of California, Los Angeles
Guided Meditations
https://www.uclahealth.org/marc/mindful-meditations

Mindful: Mindfulness for Healthcare Professionals
https://www.mindful.org/mindfulhome-mindfulness-for-healthcare-workers-during-covid

FACULTY BIOGRAPHY

Alice Yick Flanagan, PhD, MSW, received her Master's in Social Work from Columbia University, School of Social Work. She has clinical experience in mental health in correctional settings, psychiatric hospitals, and community health centers. In 1997, she received her PhD from UCLA, School of Public Policy and Social Research. Dr. Yick Flanagan completed a year-long post-doctoral fellowship at Hunter College, School of Social Work in 1999. In that year she taught the course Research Methods and Violence Against Women to Masters degree students, as well as conducting qualitative research studies on death and dying in Chinese American families.

Previously acting as a faculty member at Capella University and Northcentral University, Dr. Yick Flanagan is currently a contributing faculty member at Walden University, School of Social Work, and a dissertation chair at Grand Canyon University, College of Doctoral Studies, working with Industrial Organizational Psychology doctoral students. She also serves as a consultant/subject matter expert for the New York City Board of Education and publishing companies for online curriculum development, developing practice MCAT questions in the area of psychology and sociology. Her research focus is on the area of culture and mental health in ethnic minority communities.

Customer Information, Answer Sheet, and Evaluation located on pages 131–136.

TEST QUESTIONS
#97000 IMPLICIT BIAS IN HEALTH CARE

This is an open book test. Please record your responses on the Answer Sheet.
A passing grade of at least 80% must be achieved in order to receive credit for this course.

This 3 hour activity must be completed by August 31, 2024.

1. **Which of the following is a social characteristic that can trigger implicit biases?**
   A) *Age*
   B) *Disability*
   C) *Skin tone*
   D) *All of the above*

2. **Dr. X, a physician, acknowledges that she still has a lot to learn about different racial and ethnic minority groups. She is willing to learn from her patients and assume the role of learner. Dr. X is demonstrating**
   A) *diversity.*
   B) *reflexivity.*
   C) *explicit bias.*
   D) *cultural humility.*

3. **Intersectionality is a term to describe the multiple facets of identity, including race, gender, sexual orientation, religion, sex, and age.**
   A) *True*
   B) *False*

4. **What tool is used to quantitatively measure implicit bias?**
   A) *IAT*
   B) *SOAP*
   C) *STOP*
   D) *fMRI*

5. **More than 4.6 million individuals have taken the IAT, and results indicate that the general population does not hold implicit biases.**
   A) *True*
   B) *False*

6. **Which of the following is NOT a risk factor in triggering implicit biases for health professionals?**
   A) *Uncertainty*
   B) *Cognitive dissonance*
   C) *Time pressure to make a rapid decision*
   D) *Heavy workload and feeling behind schedule*

7. **Rather than viewing implicit bias as an invisible force (i.e., unconscious cognitive structure), behavioral theorists consider it a normal behavior.**
   A) *True*
   B) *False*

8. **How might critical theory or a structural perspective be integrated into the values and ethics of interprofessional collaboration and practice?**
   A) *Advocate for more neurologic imaging studies to examine how implicit bias affects the brain.*
   B) *Analyze how communications should reflect autonomous decision-making in its role in racism.*
   C) *The ethical responsibility is to advocate for policies that perpetuate and reinforce implicit biases.*
   D) *The role of health professionals is to focus less on the unconscious and instead emphasize explicit bias as the behaviors.*

9. **Which of the following statements regarding health disparities is FALSE?**
   A) *Health disparities are linked to disadvantaged groups.*
   B) *Health disparities refer to differences in health status and disease that are tied to structural inequities.*
   C) *There are no differences in life expectancies among African Americans and White Americans.*
   D) *The Institute of Medicine has implicated implicit bias in the development and continuance of health disparities.*

10. **Healthcare providers have implicit (and explicit) biases at a rate comparable to that of the general population.**
    A) *True*
    B) *False*

11. Research indicates that healthcare professionals' implicit biases are not correlated with lower scores on patient/client satisfaction.
A) *True*
B) *False*

12. An implicit bias training is offered at a hospital, and a total of 50 health professionals attend. During the breakout session, training participants are assigned to discussion groups. One nurse agrees that implicit bias is prevalent, but she is quite sure she does not hold any implicit biases. Which developmental stage might this nurse be in?
A) *Defense*
B) *Minimization*
C) *Structural competence*
D) *Counter-stereotype acceptance*

13. If psychological safety is threatened, what might be a potential outcome in implicit bias training?
A) *Recriminations*
B) *Self-confessions of guilt*
C) *Health disparities increase*
D) *Learning may be compromised*

14. When implicit bias interventions or assessments are planned, facilitators should be open, approachable, non-threatening, and knowledgeable.
A) *True*
B) *False*

15. Some have suggested using SOAP (subjective, objective, assessment, and plan) notes to assist practitioners in identifying implicit biases in day-to-day interactions with patients.
A) *True*
B) *False*

16. Increasing awareness of biased thoughts and responses is an example of a change-based intervention.
A) *True*
B) *False*

17. As part of an implicit bias training, participants watch a film about an African American man's experiences navigating the health system and are asked to enter the protagonist's lived reality. What type of intervention is this?
A) *Priming*
B) *Attunement*
C) *Control strategies*
D) *Perspective taking*

18. Mr. A, a social worker, attempts to record personal information about his patients and not simply social characteristics. For example, he writes, "Patient is an elderly Hispanic woman, age 79 years. She lives with her daughter and is an avid pianist." What is this an example of?
A) *STOP*
B) *Priming*
C) *Power-sharing*
D) *Individuation*

19. Counter-stereotypical imaging approaches involve presenting an image, idea, or construct that is counter to the oversimplified stereotypes typically held regarding members of a specific group.
A) *True*
B) *False*

20. All of the following are concerns with research conducted to examine the effectiveness of implicit bias reduction interventions, EXCEPT:
A) *The studies conducted to examine implicit bias reduction interventions utilize cross-sectional and not longitudinal designs.*
B) *The studies conducted to examine implicit bias reduction interventions may not be generalizable to the general population.*
C) *The studies conducted to examine implicit bias reduction interventions have measured long-term but not immediate outcomes.*
D) *Study samples have tended to include psychology students and it is not clear whether findings can be applied to other populations.*

Be sure to transfer your answers to the Answer Sheet located on page 132.
DO NOT send these test pages to NetCE. Retain them for your records.
PLEASE NOTE: Your postmark or facsimile date will be used as your test completion date.

Childhood Obesity: The Role of the Mental Health Professional

Audience
This course is designed for mental health professionals, including social workers, counselors, and therapists, who are currently treating overweight or obese children and adolescents and their parents.

Course Objective
The purpose of this course is to provide mental health professionals with the skills and motivation necessary to contribute to resolving the obesity epidemic.

Learning Objectives
Upon completion of this course, you should be able to:

1. Outline the epidemiology and consequences of childhood overweight and obesity.
2. Distinguish various obesity trajectories and their differential diagnostic and treatment issues.
3. Evaluate salient factors when assessing the overweight or obese child, including components of the interview process.
4. Recommend interventions based on the category of childhood overweight/obesity.
5. Describe importance of collaborating with the multidisciplinary team when caring for the overweight or obese child.

Faculty
Barry Panzer, PhD, ACSW, is a practitioner with more than 35 years of clinical experience with children, teens, adults, and families. Dr. Panzer is currently the co-director of Brooklyn Child and Adolescent Weight Specialists, the only multidisciplinary private practice for obese youths in New York City. In addition, he is an Assistant Professor in the Departments of Pediatrics and Psychiatry and Behavioral Sciences at New York Medical College. Dr. Panzer was selected as one of two mental health question writers on the American Board of Obesity Medicine committee for the board certification exam.

Dr. Panzer received a PhD with Distinction in social work from Columbia University and has served as a clinical instructor at Downstate Medical Center (at State University of new York) and adjunct professor at Columbia University. His post-graduate training includes family therapy, cognitive-behavior therapy, and child and adolescent nutrition. He has published in the areas of sudden infant death syndrome, crisis intervention, and ADHD. Dr. Panzer's interest in childhood obesity dates to 2003 and since then he has published articles in the American Journal of Orthopsychiatry, ICAN: Infant, Child, and Adolescent Nutrition, and ADHD Report. He has also made presentations at major conferences, including for the American Academy of Pediatrics, the American Psychological Association, and the National Association of Social Workers. Dr. Panzer is passionate about educating and motivating colleagues to become involved in caring for families of obese youth.

Faculty Disclosure
Contributing faculty, Barry Panzer, PhD, ACSW, has disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

Division Planner
Alice Yick Flanagan, PhD, MSW

Director of Development and Academic Affairs
Sarah Campbell

Division Planner/Director Disclosure
The division planner and director have disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

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NetCE designates this continuing education activity for 2 NBCC clock hours.

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Sections marked with this symbol include evidence-based practice recommendations. The level of evidence and/or strength of recommendation, as provided by the evidence-based source, are also included so you may determine the validity or relevance of the information. These sections may be used in conjunction with the study questions and course material for better application to your daily practice.

INTRODUCTION

For more than three decades, childhood obesity has been labeled a global health crisis among the world's industrialized nations [1]. In the United States, with an estimated 18.5% of children and adolescents 2 to 19 years of age classified as obese, including 5.6% with severe obesity and another 16.6% as overweight, the Surgeon General has described the problem as the greatest chronic threat to public health today [2; 3].

This course will provide an overview of the nature of this disorder, as well as practice concepts and principles to guide mental health professionals in helping these children and their families. It should be noted that, given the importance of early intervention, the course material addresses prepubertal children unless otherwise specified [4]. In addition, while overweight and obese are distinct clinical entities, comments regarding obesity, excess weight, or weight disorder will generally be inclusive of overweight. A resources section at the end of the course lists useful websites for more information and/or referral.

EPIDEMIC

Over the last two decades, experts have warned that, due to the obesity epidemic, we may be witnessing the first generation of Americans with a shorter lifespan than their predecessors [5]. The numbers, somewhat familiar by now, remain startling. The prevalence of pediatric obesity in the United States has more doubled in children and tripled in adolescents over the past 30 years, affecting both sexes and children of all ages [6]. The impact is even more damaging among low-income families and Mexican American, Native American, and African American children [6].

The statistics become more ominous when manifest in our daily experiences. For example, a 2006 study by the Center for Injury Research and Policy found that more than 250,000 U.S. children 1 to 6 years of age were too overweight to fit into standard car seats [8]. Another 2010 paper issued by the National Bureau of Economic Research titled *Unfit for Service* indicates that one in every four applicants to the armed services is rejected due to overweight or obesity [9]. Military leaders label this a threat to national security. Finally, it has been estimated that one-third of all white children and half of all minority children born in 2000 will develop type 2 diabetes in their lifetime [10]. Unchecked, the childhood obesity epidemic will dramatically alter our way of life.

How did we get to this point? Scientists have suggested that despite the importance of biologic factors in the development of obesity, the epidemic is due primarily to environmental factors [11]. The energy imbalance that defines obesity is fueled by the intersection of several societal factors, most notably the toxic food environment [12]. This concept refers to both the unhealthy quality and oversized portions of the food we eat and to the ubiquitous availability of eating opportunities in a society blanketed by fast food outlets. The use of high-fructose corn syrup has increased more than 1,000% in the past 40 years and is now a staple in almost every soft drink and snack food [13]. In addition, society has created an environment by means of an economic structure that makes processed foods more affordable than fresh foods, and the food industry and mass media market energy-dense foods to children [7; 19]. It surprises no one that the rates of cardiovascular and metabolic illnesses have reached all-time highs.

There has also been an unprecedented expansion in the electronic entertainment industry [14]. The staggering array of cable and satellite television channels, ease of access to streaming services, the addictive nature of video game systems, and the ubiquitous use of Internet-enabled screens (e.g., smartphones, tablets, laptops, personal computers) all contribute to the proliferation of sedentary activities, often accompanied by high-calorie snacking. The consequence of this limited energy expenditure is further compounded by the overall decline in sports and recreational activity both in and out of school [15].

The response to this epidemic draws on traditional public health strategies and has emphasized to a great extent preventing the development of the condition, with much less effort devoted to designing effective treatments [11]. This is in part due to continued professional reliance on a frequently ineffective prescriptive model of intervention. Most overweight children will simply be unable to adhere for any extended period to a 1,500-calorie diet and admonitions to limit soft drinks, candy, and screen time.

Yet, there are established treatment approaches consisting of family-based cognitive-behavior therapy combined with diet and exercise that have demonstrated both short- and long-term benefits [16]. This course draws on this research as well as the practice wisdom that the field of mental health has developed in its long experience with children and families.

AN OVERVIEW OF CHILDHOOD OBESITY

DEFINITION

The definition of childhood obesity involves biologic and cultural dimensions, both of which are important for effective assessment and intervention. Despite the lack of consensus regarding the physiologic parameters of overweight and obesity in children, there is widespread reliance on the body mass index (BMI) as a measure of weight in relation to height [7]. BMI is easily calculated on color-coded growth charts, via wheel calculators, and through online BMI calculators [17; 18]. The American Medical Association's (AMA's) Expert Committee on Child and Adolescent Obesity classifies BMIs in the 85th to 94th percentile as overweight, and those at or above the 95th percentile as obese [7]. Apart from research-related distinctions and program planning, the clinical significance of the two levels of excess weight is that, in childhood, increasing degrees of obesity are more socially stigmatizing, more athletically compromising, and more resistant to lifestyle modification interventions. (For adults, the distinction involves increased risk for weight-related health and mental health problems and, of course, aesthetics.)

Obesity has also been defined as a culture-bound phenomenon, with ethnic and class variations regarding desirable body image and standards of attractiveness [20; 21]. In some cultures, overweight women are considered more appealing and obesity in children is not recognized as problematic unless the child is victimized by peers or unable to participate recreationally. This greater acceptance of excess weight within the culture can reduce the negative psychosocial consequences associated with weight bias, but unfortunately may also delay the treatment of emerging health problems. Practitioners should embrace these non-quantified definitions of obesity as equally valid and central to the clinical process. Finally, an adjunct to all definitions of obesity is the concept of energy imbalance reflecting the greater intake than expenditure of calories [22; 23].

EPIDEMIOLOGY

Prevalence

The prevalence of obesity among children 2 to 5 years of age showed a slight absolute decrease from 13.9% in 2003–2004 to 9.4% in 2013–2014, though researchers remain uncertain as to whether this represents a true downward trend or an inconclusive fluctuation [24]. Among those 6 to 11 years of age, 17.4% were categorized as obese [24]. During 2013–2014, obesity prevalence was higher among Hispanic (21.9%) and non-Hispanic black youth (19.5%) than non-Hispanic white youth (14.7%) [24; 25].

Trends in the prevalence of obesity in preschool-aged children participating in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) have shown improvement since 2010. In 2007–2008, the prevalence of children 2 to 5 years of age was 10.1%, decreasing to 8.4% in 2011–2012 and then again increasing to 13.9% in 2015–2016. Although the rates of obesity are still high, data show that the prevalence of obesity among preschool-aged children declined from 15.9% in 2010 to 13.9% in 2016, indicating progress [135]. In that time (2010–2016), 41 of the 56 WIC state or territory agencies reported statistically significant decreases in the prevalence of obesity [135]. Based on data from the about the prevalence of childhood obesity in low-income families, 14.5% of WIC participants 2 to 4 years of age were obese in 2014 [25]. In the period of 2011–2014, obesity prevalence among children whose adult head of household had completed college was 9.6%, compared with 21.6% for children whose adult head of household had completed high school or less [26]. Among non-Hispanic white children, the lowest prevalence of obesity was observed among those whose adult head of household completed college; however, this was not the case for non-Hispanic black children [26].

Persistence

Three factors appear to be predictive of obesity becoming a lifelong condition: early onset, chronicity, and genetic loading [27]. An estimated 80% of children with two overweight parents will be obese; this number is decreased to 40% if only one parent is obese [28]. Among obese toddlers, 93% of boys and 73% of girls were still obese as adults, and obese teens are almost 18 times more likely to become obese adults than their normal-weight peers [29]. Research has suggested that the persistence of obesity in childhood follows several trajectories: chronic (since infancy), transient (spontaneous onset and remission), and adolescent-onset [30].

CONSEQUENCES

Childhood obesity has been termed an accelerator of adult diseases and is associated with several cardiovascular risk factors, metabolic syndrome (a prelude to type 2 diabetes), fatty liver disease, sleep apnea, asthma, and a range of other health problems [22]. However, the most immediate and common consequences of obesity among children are psychosocial, hence the vital role of mental health professionals in responding to the epidemic [31; 32]. Childhood obesity, compounded by social and familial weight bias, has been associated with diminished quality of life, societal victimization and peer teasing, low self-esteem, and specific psychiatric diagnoses [30; 33; 34; 35]. Factors associated with a greater risk of these comorbidities include: female sex, minority status, severity of obesity, the child's lack of compensatory or bias-protective mechanisms, and negative family responses [36].

ETIOLOGIES

Obesity is a multidetermined disorder, and etiologic theories involve biologic, psychologic, familial, and societal factors [37]. Biologically, the storage of adipose tissue, the regulation of appetite and satiety, metabolic rates of burning calories, and capacity for physical activity are all genetically loaded [14]. Other physiologic mechanisms include early and excessive fat cell formulation and set point theory [27; 38].

Psychologically, the concept of "emotional eating" posits that food is used (by both parents and children) to regulate dysphoric emotions and misbehavior [39]. Compulsive and impulsive personality traits, often components of psychiatric conditions, can also contribute to excessive caloric intake [40]. These individual factors may be manifested in problematic eating behaviors such as too frequent meals and snacks, a preference for calorie-dense menus, and excessive portion sizes.

Cultural factors and variations are the least researched issues regarding childhood obesity [41]. For effective intervention, a better understanding of the role of typical cuisine in various ethnic and cultural groups is necessary. Minority and poor children, for example, have less access to healthy nutrition and safe neighborhood recreation, concerns that can directly influence the energy balance [26]. In addition, the perception of obesity and its attribution also varies among cultural groups, a factor that can be critical regarding help-seeking and early intervention with these populations.

Biologic, psychosocial, and cultural aspects converge in the concept of the obesogenic family, which transmits to children both the genetic component for excess weight as well as faulty eating and exercise patterns [42]. Four family processes have been identified as increasing the risk of obesity in children. These are [43; 44; 45]:

- Parental deficiencies in knowledge about nutrition and fitness
- Faulty parental modeling regarding healthy eating and exercise
- Authoritarian, neglectful, and unstable parenting styles
- Parental psychopathology, especially a history of past or present eating disorders, depression, and/or attention deficit hyperactivity disorder (ADHD)

Clinicians should be familiar with the range of etiologies to clarify for families the most salient sources of their child's obesity and to better select targets for intervention.

TRAJECTORIES

As with any clinical entity, it is important to recognize subtypes and variations in childhood obesity, as this influences differential assessment and intervention.

Chronic

One major child health epidemiologic survey observed that nearly 15% of the survey population had never had a normal BMI [30]. Evident even in infancy, the excess adiposity is strongly related to parental genetics. These infants and toddlers may have intense appetite demands, and their parents, many with their own weight problems, may respond with faulty feeding and nutritional practices. As noted, the interplay between heredity and environment defines the obesogenic family and early-onset childhood obesity is predictive of continuing excess weight through later childhood, adolescence, and adulthood. The chronicity is also associated with a more severe degree of obesity, which in turn is related to higher rates of medical, psychologic, and social consequences.

Transient

Approximately 5% of children acquire excess weight in middle childhood (ages 9 to 12 years), which for many appears to resolve spontaneously and without professional intervention [30]. The explanation for this phenomenon may lie in the increased autonomy of this age group, which results in more unsupervised eating and near-constant sedentary activities (e.g., watching television, video gaming). Until additional research clarifies which of these children is likely to remain overweight or obese, clinicians should assess biologic and psychosocial risk factors and intervene accordingly.

Dual Diagnosis

While adult obesity is associated with more than two dozen diseases, overweight and obese children suffer mainly from negative emotional and social difficulties [31; 46; 47; 48; 49]. In some instances, the psychosocial distress is a consequence of the child's obesity, usually mediated by some degree of peer or family weight bias. These dual-diagnosis children have been characterized in the research and clinical literature as having consequent low self-esteem, diminished quality of life, or actual psychiatric disorders [30; 33; 35]. For other children, the comorbid problem can include any psychiatric or developmental condition or family stressor or dysfunction that interacts with the weight issue and requires clinical attention [50]. Practitioners should explore dynamic mechanisms that might link the two conditions, thereby providing targets for intervention with potential serendipitous value. An example of this would be the clinical focus on poor self-regulation in an obese child with ADHD. Executive functions deficits like impulsivity compromise academic and social behavior as well as the ability to limit caloric intake or to maintain a weight-reduction effort [40; 51].

It is worth noting that because a comorbid psychiatric problem may exclude these children from empirical studies and obesity clinic services, it is difficult to determine the actual prevalence of dual-diagnosis obese children. If, in fact, the size of this subgroup has been underestimated in research and practice, it might explain the limited success of standard prescriptive methods as well as the necessity of involving mental health professionals in childhood obesity treatment.

Well-Functioning

Another subgroup of obese children whose prevalence is undetermined is those who appear unaffected by weight bias or the limitations associated with excess weight. The family or cultural environment may buffer these children from societal weight prejudices or the child may possess admired talents or desirable personality traits that promote popularity and a positive self-image [52; 53]. Researching these protective and adaptive factors can provide important therapeutic strategies for helping children and families cope with the stigma of excess weight.

CLINICAL PROCESS

ASSESSMENT

Primary Tasks

As in all assessments, when caring for the obese child, the practitioner's primary tasks are to engage the family in the evaluation process and to acquire sufficient information for a diagnostic formulation and treatment planning [54; 55].

Who to engage initially is a decision dependent on the clinician's orientation and the age of the patient. Using a family behavior modification model, the provider would conduct the intake interview with the parent(s) or caretaker(s) without the pre-pubertal child for several reasons. First, most pre-teens are dependent on their adult caregivers for menu planning. Second, there is evidence that child obesity treatment can be successful with parent counseling alone [56; 57]. Third, a behavioral assessment is relatively structured and detailed, and collecting a significant amount of data is more easily accomplished in an adult-only interview. Fourth, the conjoint interview more comfortably allows for discussion of parental emotional distress regarding the child's obesity and the need to seek professional help. In this regard, early family theorists recognized that building alliances and "joining" are fostered by trying to relieve the parents' anxiety, guilt, and shame, efforts that convey the practitioner's nonjudgmental acceptance and support [58; 59]. Finally, when family stressors such as individual psychopathology or marital conflict are issues, these are obviously more appropriately reviewed with the parents alone. (When the patient is an adolescent, the initial session can include him/her, saving a few minutes at the end to connect with the teen alone.)

The preference for a behavioral paradigm is not intended to minimize the value of systems concepts in understanding family structure and function in relation to the child's obesity. In our later discussion of the oppositional obese child, for example, the triangulation of the child's excess weight as a homeostatic mechanism will be considered [60]. Nonetheless, there is only limited exploration in the literature of obesity as a systems disorder and little evidence that traditional family therapy has been studied in treating obese children [61; 62; 63; 64; 65].

Engaging the parents may also involve encountering various forms of resistance, which itself can provide additional diagnostic information about the family. Last minute cancellations, an absent parent, blaming self or each other, or denying the problem and its significance reflect a variety of motivational obstacles and, from a systems perspective, may indicate the family's protective stance and reluctance to change [66]. Practitioners should demonstrate both competence and genuine concern and should certainly be mindful of not using pejorative terms regarding excess weight. Respect for and sensitivity toward the family's cultural and ethnic values is also critical. However, if parents continue to deny the current or future seriousness of the child's obesity and relevant information has been provided in discussion and print, the family's boundaries should be respected without further challenge or disapproval, thereby allowing for future consultations.

The second primary task of the assessment is gathering and organizing enough information about the child and family to develop goals and a plan of intervention. Data collection requires balancing the extra time needed for additional interviews, diagnostic measures, and collateral consultations (especially with dual-diagnosis children) with the family's impatience to begin treatment. The deliberate pace can be therapeutic, however, insofar as the assessment process conveys the importance of careful analysis and planning in problem solving.

Pre-Interview Correspondence

One practical method of engaging the family to increase their motivation and commitment is to forward several diagnostic forms and checklists prior to the first interview. This initial correspondence can serve several purposes. Given the large amount of information needed for a comprehensive assessment, the materials sent to the parents can both verify and supplement interview data. The mailing conveys the expectation that parents will be active in the clinical process, a dynamic that will be extended in the monitoring of dietary and exercise behavior and other intervention tasks. The correspondence also signals the mutuality and shared responsibility of the clinician and family, with the expectation that the parental effort will be matched by the practitioner's diligence in reviewing all completed forms.

The Registered Nurses' Association of Ontario recommends assessing the family environment for factors (e.g., parenting/primary caregiver influences and sociocultural factors) that may increase children's risk of obesity.

(https://rnao.ca/sites/rnao-ca/files/Childhood_obesity_FINAL_19.12.2014.pdf. Last accessed November 18, 2020.)

Level of Evidence: IV (Evidence obtained from expert committee reports, opinions, and/or clinical experiences of respected authorities)

The materials forwarded should address four basic types of information [68; 69; 70; 71; 72; 73]:

- A child and family background form, common to many intake procedures, that includes identifying data; obstetrical, developmental, and temperament histories; current biopsychosocial functioning; and family stressors
- A screening device for a broad-based quantification of behavioral difficulties
- A questionnaire to survey the child's eating behavior
- A three-day food record

This selection of instruments signals to the parents to consider connections between the child's development, current functioning, family interaction, and excess weight. Clinicians may also wish to include a brief handout regarding excess weight among youths that is both informative and reinforces the family's decision to address a significant problem.

Initial Interview

A good starting point for the initial parental session is to reduce anxiety and increase cooperation by clarifying the evaluation process itself. Accumulating salient information begins with reviewing the diagnostic material previously mailed to the family, which not only rewards and respects the parents' effort but can help highlight areas requiring more elaboration. The standard interview strategy of proposing open-ended questions (e.g., "What is concerning you about your child's weight?") followed by specific probes can be useful in exploring cultural, familial, and individual aspects of eating behavior and clarifying the onset and contributing and maintaining factors in the child's obesity. Practitioners should assess the medical and psychosocial consequences as well as previous attempts to remedy the problem.

Parents should be asked to note their primary concern(s) and to mention additional issues to be discussed. This enables the clinician to "start where the family is" and to allocate time in the session to cover all areas. Regarding the child's weight, it is important to determine the meaning attached to this problem and to clarify family eating patterns and attitudes toward obesity. Weight bias in family members, relatives, and peers is a particularly potent source of distress to the child [74]. The amount and type of physical activity for the child is another vital area, as is the time spent watching television, playing video games, or using the computer.

Practitioners should screen for psychiatric disorders, academic problems, peer rejection, and family, situational, and developmental crises. The flow and content of the interview will also provide opportunities to observe family systems properties, such as structure, roles, boundaries, communication patterns, problem-solving style, and available resources [58]. The concluding activities of the initial session provide supplementary data for the assessment via referrals for specific consultations and requests for additional structured measures. These consultations may include examination by the child's pediatrician (including laboratory testing for weight-related issues and referral to medical subspecialties) and referrals for psychoeducational testing and/or speech and language assessment. The additional diagnostic forms and questionnaires for parents may focus on dietary and exercise behaviors and specific psychiatric disorders [75; 76; 77; 78; 79]. If the child is experiencing academic problems, teacher-completed rating forms can help clarify the deficits [80]. At the end of the session, the clinician can inquire regarding the parents' current anxiety level in comparison to the beginning of the visit as well as any disappointment or distress experienced during the session.

Child Interview(s)

Effective practice with children requires that the choices of interview activities (e.g., talking vs. playing) and structured measures be consistent with the child's age and presenting problems [81]. The interview(s) with the child can include a variety of age-appropriate structured measures to assess general functioning, self-esteem, body image, and specific disorders such as depression and anxiety [82; 83; 84; 85; 86; 87; 88]. When there is a clear or suspected comorbid psychosocial disorder, the clinician will need to allocate additional diagnostic time and materials to achieve an understanding of both conditions. Enabling the obese child to feel comfortable, a universal task of all professional helping, begins with clarifying his or her understanding of the nature of the practitioner and the process of the evaluation. Notably, because the child may associate the visit with a medical examination, it is important to draw the distinction and to assure the child of no injections, undressing, or touching.

The two primary areas for exploration are the child's obesity and current psychosocial functioning. If the discussion has already included mention of the weight problem, the mental health professional should proceed to elicit the child's thoughts and feelings about his or her body, perceived consequences (e.g., athletics, clothing) and experiences (including familial) with weight bias. This is also the point to quantify time spent in active vs. sedentary (electronic) entertainment, inquiring as to whether the latter is a source of conflict with parents.

Many preadolescent obese children will not be able to provide specific reasons for wanting to lose weight, though older girls may express distress regarding body contour and fashion problems and athletic youth may complain about impaired performance. The motivation to lose weight for the majority of obese boys and girls is more likely the need to escape the teasing and rejection associated with weight bias [89].

Although the effectiveness of family-based behavior modification depends largely on parental motivation and ability, it is still important to assess the child's capacity for change. The key elements here are the degree of impulse control and the ability to follow plans. The clinician should be familiar with the developmental levels of these executive functions and should assess whether deficits in those areas (e.g., ADHD) compromise the child's ability to achieve behavioral changes. A useful strategy involves helping the child to recognize his or her capacity for change by locating previous success in learning new nonacademic or developing adaptive habits (e.g., video game/sports skills) or suppressing dysfunctional reactions (e.g., early childhood phobias). Practitioners with play therapy skills can supplement the interview process with diagnostic play activities, such as puppets, figures, and drawings. Important themes to elicit include body image, self-control, conflict with parents, and rejection by peers.

Clinicians should be aware that the critical need to establish positive rapport with the child in all therapeutic work is even more important with the obese child. These children may have already experienced the real or perceived insensitivity or disdain of various adults (e.g., parent, relative, teacher, coach, pediatrician) and will be fearful of similar mistreatment [74; 90]. Moreover, because the parents will implement unwelcome behavioral restrictions regarding diet and electronic activities, the child's emotional connection to the counselor can facilitate his or her cooperation.

Informing Interview

The informing interview with the parents is the pivotal session, linking the diagnostic and treatment processes. It is essential that all sources of information—interviews, structured measures, collateral reports, and consultations with other professionals—be coordinated and reviewed prior to meeting with the parents. The data should be analyzed to provide a clear and comprehensive formulation regarding the causative and maintaining factors in the child's obesity and any comorbid psychosocial disorders. Apparent or presumed connections between the two conditions, as well as the role of family dynamics in either issue, should also be presented to the parents. Familiarity with theories of obesity and weight-loss methods is essential for practitioners, as parents will often have questions about their child's weight disorder, popular diets, supplements, and exercise activities during this interview. As such, this can be an important opportunity for the mental health provider to demonstrate competence and thereby increase the family's trust in the consultation.

The next task of the session is to preview recommended treatment strategies prior to setting short- and long-term goals. This enables parents to gauge the effort needed to help their child and to more confidently commit to the treatment program. There are several formulas for assessing motivation and readiness for change, generally derived from clinical work with addictive disorders [91; 92; 93]. Determining the parent's level of motivation can yield more realistic expectations as well as highlight potential resistances.

Typology

As part of the diagnostic formulation, practitioners may find it helpful to categorize overweight and obese children using a two-dimensional typology based on degree of excess weight and the presence of medical, psychosocial, or family comorbidities.

Although overweight (i.e., a BMI in the 85th to 94th percentile) is sometimes labeled as "at risk for obesity," it is better understood as its own clinical entity, with differing etiologies and trajectories, lesser consequences, and overall better prognosis. In contrast, obesity (i.e., BMI at or above the 95th percentile) is clearly more damaging and compromising, with numerous and potentially severe consequences that can reach life-threatening proportions. The AMA Expert Committee on Child and Adolescent obesity differentiates these weight categories via separate clinical processes regarding the setting of goals and the methods of treatment [2; 6].

The second dimension involves the presence or absence of any co-occurring health or mental health conditions. Both the treatment objectives and the range of interventions will depend on the nature, number, and severity of these comorbidities. The two dimensions can yield a matrix of four clinical profiles [94]:

- Type 1: Overweight with no complications
- Type 2: Overweight with any single feature or combination of the following:
  - Medical problems
  - Psychosocial, developmental, or academic problems
  - Individual, parental, or marital problems
  - Family stressors

- Type 3: Obese with no complications
- Type 4: Obese with any single feature or combination of the following:
  - Medical problems
  - Psychosocial, developmental, or academic problems
  - Individual, parental, or marital problems
  - Family stressors

The four categories are not only useful clinically but can also guide program development and assessment and research efforts.

GOAL SETTING

Often neglected in clinical practice, establishing goals of intervention in collaboration with the family is crucial to both measuring success and fostering important treatment processes [95]. While the actual treatment goals will vary with each typologic profile, there are general principles that guide the overall process [94]. It should be noted that in instances in which the data collection has been insufficient, the preliminary goal will involve extending the diagnostic process to achieve a more complete case formulation. This may not be prudent when there is a crisis or urgent situation or when delaying any intervention risks the family's discontinuing contact.

The approach to setting outcome goals optimally involves collaboration between the counselor, parents, and child (if chronologically appropriate). This not only improves family communication and problem solving but also enhances parent-child motivation while reducing oppositional interaction [96]. Decisions may focus on prioritizing objectives and determining whether goals will be addressed concurrently or sequentially. The practitioner may rely on established methodologies, such as behavioral contracting or goal attainment scaling, or draw on their own clinical orientation and style [97; 98]. All goals, however, should be documented to facilitate accountability and to reduce misunderstanding.

Devoting a separate session to goal setting indicates to the family that achieving weight loss and stabilization, especially when coupled with a psychosocial or family problem, requires planning and cooperation. This approach counters the impatience and impulsivity that accompanies many weight loss attempts and models for parents the necessity of accountability in any behavior modification effort.

One universal goal for children with any degree of excess weight is to develop patterns of healthy nutrition and physical fitness. There are useful guidelines in both areas developed by the U.S. Department of Agriculture's (USDA's) ChooseMyPlate and the American Academy of Pediatrics [99; 100]. Because sustained weight loss may not be achievable for some children despite repeat efforts, achieving good dietary and exercise habits remains an important therapeutic goal. For such children, it is also helpful to distinguish between goals that require actual weight loss (e.g., reduced clothing size) from those that do not (e.g., improved self-esteem). There is general consensus that targeting a specific weight goal should be avoided, with emphasis instead on achieving better overall health and functioning and a concomitant lower BMI [7]. The traditional therapy goals for mental health problems accompanying overweight are to reduce distress and dysfunction and to improve adaptive behavior and coping skills.

TREATMENT

The dimensions of childhood obesity treatment are its components and parameters, which will be discussed according to the typology profiles. First, an overview of data regarding the reported effectiveness of treatment for obese children can provide important background.

The research literature indicates that many weight-reduction approaches with children are beneficial on a short-term basis, with positive outcomes observed one year post-treatment [101]. Whether the weight loss could be maintained over a longer period and what level of intervention would be needed to achieve this are undetermined, though one seminal paper documented sustained improvement 10 years after treatment, and a follow-up found that these results were replicated over a 25-year period [102; 103]. In general, these findings can be interpreted to parents as validating a variety of methods and techniques and should also challenge clinicians to extend these results. Unfortunately, there are still no consensus findings regarding the best strategies for achieving long-term weight control or for preventing relapse [104]. The other significant deficiency in childhood obesity treatment is the lack of guidelines regarding cultural variations [105]. It is increasingly clear, however, that until policymakers fully embrace a chronic disease model in treating obesity, which endorses decades or even lifelong intervention, treatment effectiveness will remain compromised. Practitioners should endeavor to understand ethnic, social, and religious factors shaping the family's eating behavior during the evaluation and goal-setting phases and to flexibly incorporate these in the treatment effort.

TYPE 1: OVERWEIGHT WITHOUT COMORBIDITIES

Goals

As established by the AMA Expert Committee on Child and Adolescent Obesity, the goal of intervention for these children is to prevent further weight gain, assuming the child's linear growth will result in a normal range BMI [7]. That dietary adjustments and physical activity can affect weight and body contour is an empowering experience for children and may serve as a blueprint for self-regulating activities throughout life.

Components

The clinical assumption is that providing overweight children and their parents with information regarding healthy nutrition and fitness will enable the child to achieve the stated goals. Intervention is primarily educational with supportive counseling. The range of formats includes structured classes for parents and children (separately or combined), specialized groups, family or parental sessions, or individual discussions with the child. The choice of format will depend on the location of service. Classes and large groups are more logistically suited to clinics and facilities, and family and child sessions are more convenient in office-based practices. In addition to the general educational process, families may benefit from a written, personalized diet and activity plan supplemented by behavior modification methods.

Parameters

As noted, there is no consensus regarding the parameters of treatment for overweight children, but common practice finds that many of the educational curricula include the following topics:

- Hunger and satiation
- Healthy nutrition and age-specific calorie needs
- Interpreting food labels
- Portion sizes
- Misuse of food as a reward
- Emotional eating
- Physical activities and exercise
- Reducing sedentary electronic entertainment

Various programs provide this information in the forms of lectures, media presentations, and written materials, spanning 10 to 12 weekly sessions [75; 106; 107]. In addition to this educational process, some families may require a more personalized diet and activity plan and behavioral techniques for implementation.

Optimal follow-up upon completion of the intervention has not been determined, but practice wisdom suggests that monthly sessions, emails, or phone calls may suffice for checking progress. With the achievement of a normal range BMI, contact is as needed.

TYPE 2: OVERWEIGHT WITH COMORBIDITIES

Goals

While the goals for the child's excess weight are identical to type 1 profiles, the addition of one or more concurrent problems broadens the treatment objectives. For a comorbid medical problem, the intermediate goal is establishing or maintaining communication with the child's physician. If the condition is a consequence of the child's excess weight (e.g., sleep apnea), the longer-term goal will be the reduction or elimination of the health issue via achieving a normal range BMI or medical intervention.

When a psychosocial or family problem accompanies the child's overweight, the goals will be more extensive and complex. The diagnostic evaluation would have indicated the presence of a critical situation, such as suicidality, psychosis, domestic violence, impending divorce, or school expulsion, and attending to these is clearly an immediate goal. For nonurgent mental health issues, the traditional goals noted for type 1 cases apply. In this regard, the evaluation would also have suggested any dynamic mechanisms connecting the excess weight with psychosocial problems, and the treatment goals might accordingly focus on modifying the connection [60; 108]. An example of this would be the goal of improving an obese depressed child's ability to verbalize upsetting feelings to reduce both emotional eating and acting-out behavior. As noted, other decisions regarding the goals for dual-diagnosis children include designating priorities and establishing sequential or concurrent objectives.

Components

For children whose depressive feelings, low self-esteem, or peer problems are related to weight bias, group therapy is an appropriate modality for universalizing distress, fostering mutual support, and sharing coping strategies [67; 109]. Individual counseling can either support the group process or serve as the primary intervention for these negative consequences. In this modality, play and cognitive-behavioral techniques can help the child modify faulty self-perceptions and problematic interpersonal patterns [110; 111].

A second dual-diagnosis profile consists of a specific psychiatric or family problem that accompanies the child's overweight. When depression, oppositional disorder, ADHD, and/or marital conflict or parental psychopathology impact on the child's energy imbalance, clinicians should implement evidence-based interventions in the forms of individual, group, parental, or family therapy [30; 40; 112; 113]. When indicated, psychopharmacologic treatment can be another component of the intervention effort, with the awareness that some psychotropic agents may lead to weight increases.

Parameters

The parameters for modification of overweight follow the recommendations for type 1. For the negative emotional and social consequences of excess weight, group formats vary from time-limited, topically oriented (e.g., bullying) meetings to long-term, open-ended, unstructured support sessions. For the comorbid psychosocial or family problem, there are no consensus guidelines for the frequency or duration of contact. Until research clarifies this issue, practitioners should rely on the parameters associated with the chosen treatment modalities. It is also possible that in addressing parental psychopathology or marital problems, it may be necessary to collaborate with another clinician.

TYPE 3: OBESITY WITHOUT COMORBIDITIES

Goals

For obese children with no medical or psychosocial comorbidities, the outcome goal is weight reduction followed by maintenance [7]. Most intervention efforts recognize that acquiring knowledge about healthy nutrition and physical fitness (as described for type 1) are corollary goals of losing weight [94]. However, decades of research and clinical practice confirm that, for the majority of children and families, didactic material and discussions are insufficient to achieve sustained weight loss outcomes.

Components

As discussed, there is general consensus that the components of most effective weight-loss programs consist of a parent-mediated diet and exercise plan, enhanced by cognitive-behavioral techniques [94; 114]. The parents are the primary agents of intervention, with responsibility for purchasing and preparing nutritious food; regulating eating opportunities, portion size, and snacking; limiting electronic entertainment; and promoting physical activity.

Diet

Of all the treatment components, a reduced-calorie diet is considered central to the weight-loss process for obese children. Although research has not been able to identify a single most effective weight-reduction diet, there are several approaches with both practical and proven value: modification of menu, structured diets, and consultation with a nutritionist.

Based on age-related recommendations, the child's caloric intake can be reduced via smaller portions, fewer eating occasions, limited or no consumption of sugar-sweetened beverages, and more selective dining out [94]. The obese child and his or her parents may find calorie counter texts and apps and the series *Eat This, Not That* to be both user-friendly and empowering [115; 116]. Because research has indicated that parental attempts to limit food may actually undermine the child's self-regulation, this collaborative effort in designing the menu can be instructive for the child and reduce oppositionalism [117]. Mental health professionals should also be familiar with scientific controversies regarding the value of substituting low-fat or diet versions of snack foods, as well as methods to promote a greater range of tastes and textures in the child's diet [99; 118]. Innovative studies from the past decade offer practical and validated strategies and materials for improving children's nutritional choices [133].

Where modification of the child's current menu is either rejected by the family or unsuccessful after several months, the clinician should present to the child and parents several textbook child diets that have been validated empirically. The most widely researched program for children is the Traffic Light Diet, which utilizes the concept of red, yellow, and green signals to guide the child's eating behavior [119; 120; 136]. Red light foods, which should be minimized or avoided, contain 5 or more grams of fat per serving; yellow light items, to be consumed in moderation, contain 2–5 grams of fat per serving. Green light foods, which contain less than 2 grams of fat and 20 calories or less per serving, are always preferred. Again, enabling the parents and child to select among structured diets can reduce the likelihood of battles over meals and snack items.

There are several circumstances in which consultation with a pediatric nutritionist will be indicated. Some parents will choose to meet with the nutritionist at the onset of treatment, while others will view this service as a last option. Two clear clinical indications are when the child has additional medical/dietary concerns, such as celiac disease or diabetes, that require nutritional management, or when previous dietary efforts have not been effective, despite apparent compliance and review of possible obstacles.

Physical Activity

Obese children can benefit from the same exercise recommendations and limits on sedentary electronic entertainment proposed for types 1 and 2 overweight children. Clinicians should be aware that children with BMIs exceeding the 95th percentile may avoid physical activity due to embarrassment, the discomfort of exertion, and the inability to compete athletically [94]. Obese children may be helped to regain the joy of movement through yoga, tai chi, low-impact aerobics, and noncompetitive games and sports.

It is important to note that research findings are inconsistent regarding the long-term effects of exercise on weight loss, and families should be advised that physical activity alone is unlikely to produce a substantial or sustained reduction in weight [114]. Even school-age children can be helped to understand that one 500-calorie muffin can offset a full hour of aerobic effort.

A clinically useful concept is that exercise functions synergistically with a reduced-calorie diet, enhancing both the child's metabolic rate and his or her motivation and persistence to maintain food restrictions. The self-perception of feeling fit can serve as a stimulus to continue healthy eating and to more readily engage in physical recreation. Parents can serve as positive role models in this area [94]. Moreover, the same positive self-image can be a source of cognitive dissonance in avoiding snacking and fast food meals. Efforts to improve the child's physical fitness may also require a simultaneous reduction in access to electronic entertainment. In fact, there is some data indicating that decreasing this kind of sedentary activity may have a greater impact on weight loss than structured aerobics [101].

Cognitive-Behavioral Strategies

The third component of obesity treatment for children incorporates behavior modification and cognitive therapy methods to facilitate dietary and fitness goals. While some families may readily adhere to prescribed diets and exercise regimens, many will require behavioral techniques to achieve the short- and long-term goals.

The behavioral strategies associated with obesity treatment for children focus on improving the child's self-control in conjunction with the parents' regulation of cues and opportunities associated with problematic eating and inactivity. For many families, monitoring a variety of behaviors will constitute their first short-term goal and intervention [121]. Food charts can record content of meals and snacks; caloric tallies; portion sizes; moods, hunger, and appetite when eating; amount of sweets and soft drinks vs. fruits and vegetables consumed; and the number or kind of faulty eating situations avoided. Exercise charts can track aerobic parameters such as duration, speed, and level; frequency and nature of activity; pedometer totals; or conversely, the amount of time devoted to television, computer, and game systems [104]. Monitoring the child's weight on a daily basis is not strategically useful, given the normal fluctuations and the misleading tendency to correlate the day's consumption (or lack of) with increases or decreases. Weekly intervals provide useful feedback, but measuring weight should not eclipse the importance of daily dietary goals, which are essential for steady progress. Twice-weekly weighing may be desirable for children who require more frequent reinforcement due to a short attention span or limited motivation.

In addition to monitoring, behavioral methods such as stimulus control, contingency contracting, and response cost may be needed to reward (or penalize) compliance with dietary and sedentary activity restrictions [104; 122]. It is, in fact, not uncommon for monitoring itself to require positive reinforcement. A guiding principle here is that smaller changes introduced gradually are more likely to be incorporated on a permanent basis [7].

Cognitive therapy techniques such as refuting and restructuring have been applied to dysfunctional beliefs, dichotomous thinking, and overgeneralization in the treatment of adult obesity, and these and other forms of "negative thinking styles" have been adapted for use with children [110; 123]. Clinicians should also consider incorporating into treatment compensatory coping mechanisms found among obese children, such as discounting or minimizing the importance of certain traits or abilities [124].

The final and perhaps most critical cognitive-behavioral strategy is maintenance of the reduced weight. This phase of treatment, also known as relapse prevention, provides the obese child and his or her parents with techniques for rapidly limiting weight regain and dealing with residual body image problems, which can undermine the child's progress [125].

Parameters

The parameters of childhood obesity treatment contain a wide assortment of formats with much variation in the frequency of sessions, the content of interventions, and the length of contact. As such, there are no consensus guidelines for treatment of this subtype. However, given the chronicity of excess weight for many afflicted children, much of the research supports the notion that longer contact (not necessarily continuous), measured in years, is associated with more favorable outcomes. Based on this observation, it is reasonable to proceed with the position that obese children will require more clinical contact to achieve a normal-range BMI. Weekly individual and parental sessions (the general model for therapeutic processes) can be a starting point for ongoing opportunities to modify ineffective methods and provide support and encouragement. When there has been limited or no weight loss over a three- to four-month period, there are several appropriate responses by the counselor:

- Review accuracy of monitoring: There is a documented tendency to underestimate portion sizes or to not recall the extent of grazing and snacking; make adjustments as needed.
- Search for faulty cognitive patterns in child and parent, especially negative or dichotomous thinking. Overgeneralizing a temporary setback, for example, can undermine motivation and result in inflexible coping.
- Recognize the child's and family's disappointment. Suggest genetic/metabolic explanations regarding the body's resistance to losing weight.
- Refocus on maintaining current body weight. Re-initiate weight loss efforts in three to six months.

Session Protocol

The family sessions recommended in the previous section can be structured via the following protocol:

- Weigh the child, if present (with a quality scale).
- Review food and activity charts, a key source of data and a process that reinforces child and parent compliance.
- Explore and address nonadherence or resistance. Faulty cognitions or behavioral routines may be responsible for the lack of success.
- Provide positive reinforcement for completion of task or goal.
- Summarize session and plan the next visit, for the purpose of providing feedback and a sense of continuity for the family.

The most likely consultation regarding the type 3 child will be with a pediatric nutritionist. Collaboration with the nutritionist is best achieved in an atmosphere of mutual respect and the clear delineation of roles. In instances in which the nutritionist will provide ongoing counseling (as opposed to a single consultation), timely communication between clinicians is critical for successful management.

TYPE 4: OBESITY WITH COMORBIDITIES

Goals

The obese child with comorbid medical and/or psychosocial disorders is the most clinically challenging of all the typology profiles. Combining the treatment goals of type 2 and type 3 profiles, practitioners may need to focus on weight reduction and mental health and/or health issues, either concurrently or in sequence. Where there is a dynamic mechanism presumed to connect both issues, this itself becomes a target of intervention.

Components

Given both conditions, the components of treatment include family-based behavior modification to support diet and exercise and the full range of counseling and psychotherapeutic approaches, including medication when indicated for psychosocial and family problems. Unfortunately, few practitioners or clinics are able to provide the integrated, comprehensive treatment indicated for these children.

Parameters

As noted with the type 3 child, the frequency and duration of clinical contact reflects the chronicity of early-onset obesity. Treatment for mental health problems is guided by the parameters recommended in evidence-based interventions. The decision to address one or multiple issues will also shape the parameters of treatment. Limited weight loss should be reviewed according to guidelines for type 3 obesity, and the same session profile applies to weight reduction. When the psychosocial or family problem is treated concurrently, practitioners may opt to divide sessions between designated topics. However, if the weight problem is not the current agenda, there should be no weigh-in nor calorie review.

Dynamic Mechanisms

While it is clinically evident that any psychiatric disorder can present with obesity, epidemiologic research has noted three diagnostic correlations with excess weight in childhood. The interactive connection between childhood obesity and ADHD, oppositional defiant disorder, and depression may involve specific mechanisms that should be addressed in treatment [30; 51; 60]. There are some preliminary findings regarding the prevalence of overweight and obesity among children with autism spectrum disorders, but this is not discussed in this section due to methodologic limitations of the data [126]. This has also been documented for children with intellectual limitations, and the prevalence of binge eating disorder among pre-adolescents requires further investigation [134].

The linear relationship between ADHD and excess weight is presumed to involve the child's poor self-regulation; however, the child's socioeconomic status also has been shown to be strongly associated with overweight and obesity in children with ADHD [40; 127]. Impulsivity and planning/organizational deficits can fuel excess snacking, frequent fast food meals, and a lack of self-discipline regarding dieting and exercise. The ADHD child's difficulty with peer relations and physical coordination can lead to a preference for sedentary electronic entertainment, a known correlate of excess weight in children [51]. Compounding the child's inherent impairment is the likelihood that, based on genetic loading, at least one of the child's parents also struggles with executive functions deficits. Helping an ADHD parent structure an ADHD child's eating and exercise behavior can be a formidable task.

Depression and childhood obesity appear to be mutually reinforcing, with dysphoric feelings relieved by overeating and, in turn, excess weight and the consequent stigma leading to emotional distress [128; 129]. Obese depressed children will also suffer from peer rejection, which can translate into isolated electronic recreation.

There is a similar bidirectional relationship between oppositional defiant disorder and childhood obesity [30; 60]. An obese toddler or preschooler with a demanding appetite may experience increasing parental food controls, leading to defiant eating behavior and intensified parental limits. Family systems theorists may also recognize the role of parent-child food battles in triangulating homeostasis and achieving equilibrium via the child's excess weight.

MULTIDISCIPLINARY COLLABORATION

Given the multifaceted nature of childhood obesity, practitioners will most likely need to collaborate with other professionals, including pediatricians, medical specialists, nurses, nutritionists, and exercise physiologists. For children with comorbid psychosocial or family disorders, contact among clinical social workers, counselors, psychologists, psychiatrists, therapists, and teachers may also be necessary. The collaborative efforts may focus on assessment, treatment, or both.

The American Academy of Pediatrics recommends that patients requiring higher levels of care be managed by a multidisciplinary team with expertise in childhood obesity, including a behavioral counselor (e.g., social worker, psychologist, trained nurse practitioner, other mental health care provider), registered dietitian, and exercise specialist.

(https://pediatrics.aappublications.org/content/120/Supplement_4/S254. Last accessed November 18, 2020.)

Level of Evidence: High-quality evidence (Further research is very unlikely to change confidence in the estimate of effect.)

Due to the wide-reaching boundaries of mental health care, mental health practitioners maintain liaisons with a variety of other disciplines and often develop an expertise in collaboration [130; 131; 132]. These relationships are not only clinically necessary but can generate creative research and novel interventions, important ingredients in addressing any epidemic. The key to effective teamwork begins with genuine appreciation and respect for one's colleagues. Cooperation is enhanced by learning about the philosophies and methods of other practitioners, which can also minimize potential territorial conflicts. Communicating diagnostic and intervention data is best achieved by formally structuring the frequency and method of contact. This kind of team effort is exemplified in tertiary-level childhood obesity clinics and facilities involving continuous interaction among physicians, nutritionists, mental health professionals, and exercise trainers.

CONCLUSION

Childhood obesity has reached epidemic proportions and threatens to undermine our national health, economy, and military capacity. While the response to this public health crisis has emphasized primary prevention, the estimated 10 million overweight and obese American youth deserve comprehensive and effective treatment.

In order to help these children and families, mental health professionals must become more knowledgeable about the causes and consequences of childhood obesity as well as healthy nutrition and physical fitness. The proposed practice model emphasizes parent-mediated diet and exercise supported by cognitive and behavioral methods.

RESOURCES

KidsHealth
https://www.kidshealth.org
Elaborate program with tips, cartoons, games, and resources. Also provides a 10-week curriculum for healthy living for families, suitable for individual or group format.

Team Nutrition
https://www.fns.usda.gov/tn
Initiative of the USDA Food and Nutrition Service supporting child nutrition programs.

Action for Healthy Kids
https://www.actionforhealthykids.org
Fights childhood obesity, undernourishment, and physical inactivity by helping schools become healthier places.

Alliance for a Healthier Generation
https://www.healthiergeneration.org
Nutrition and fitness information for school programs.

The Center for Health and Health Care in Schools
http://www.healthinschools.org
Resource center for information regarding general child health and childhood obesity.

Choose MyPlate
https://ChooseMyPlate.gov
Online tools and printable handouts regarding foods that are building blocks for a healthy diet. The Start Simple with MyPlate mobile app is available to pick daily food goals and see real-time progress.

Eat Right: For Kids
https://www.eatright.org/for-kids
Resources for healthy eating, including recipes and nutrition articles and videos.

LiVe Well
https://intermountainhealthcare.org/ live-well
Resources to assist in making healthful choices, becoming more physically active, and leading a healthier lifestyle.

HealthyChildren.org
https://healthychildren.org/English/health-issues/conditions/obesity
Resources and information on promoting the health of obese children and adolescents.

Customer Information, Answer Sheet, and Evaluation located on pages 131–136.

TEST QUESTIONS

#72253 CHILDHOOD OBESITY: THE ROLE OF THE MENTAL HEALTH PROFESSIONAL

This is an open book test. Please record your responses on the Answer Sheet.
A passing grade of at least 80% must be achieved in order to receive credit for this course.

This 4 hour activity must be completed by November 30, 2023.

1. Which of the following is a factor in the childhood obesity epidemic?
A) Toxic food environment
B) Decreased physical activity
C) Increased electronic entertainment
D) All of the above

2. Obesity has also been defined as a culture-bound phenomenon, with ethnic and class variations regarding desirable body image and standards of attractiveness.
A) True
B) False

3. Roughly what percentage of American children 2 to 5 years of age were obese in 2013–2014?
A) 9.4%
B) 26.5%
C) 37.1%
D) 48.8%

4. All of the following factors appear to be predictive of obesity becoming a lifelong condition, EXCEPT:
A) Early onset
B) Chronicity
C) Genetic loading
D) Maternal anxiety

5. The most immediate and common consequence of obesity among children is
A) sleep apnea.
B) hypertension.
C) type 2 diabetes.
D) psychosocial distress.

6. Which of the following is NOT associated with a greater risk for psychologic comorbidities among overweight and obese children?
A) Female sex
B) Minority status
C) Severity of obesity
D) Suburban environment

7. Which of the following is NOT a biologic cause of obesity?
A) Genetic loading
B) Set point theory
C) Fat cell formation
D) Circadian rhythm factor

8. All of the following are elements in obesogenic families, EXCEPT:
A) Genetic loading
B) A healthy parent
C) Faulty eating patterns
D) Authoritarian parenting

9. Among obesity trajectories, which subgroup constitutes approximately 15% of obese children?
A) Chronic
B) Transient
C) Dual diagnosis
D) Well-functioning

10. Which of the following is TRUE regarding dual-diagnosis children?
A) Their quality of life is impaired.
B) Their self-esteem is diminished.
C) They may have psychiatric disorders.
D) All of the above

11. Which characteristic is NOT associated with well-functioning obese children?
A) Special talents
B) Family support
C) Congenial personality
D) High socioeconomic status

12. Which of the following is TRUE regarding using a family behavior modification model during interviews?
A) It is preferable to see the entire family.
B) The focus is on parent-child dynamics.
C) Seeing parents alone facilitates data collection.
D) The child's presence allows for assessing crises.

Test questions continue on next page ➔

13. Which of the following may indicate the family's protective stance and reluctance to change?
A) *An absent parent*
B) *Denying the problem*
C) *Last minute cancellations*
D) *All of the above*

14. All of the following diagnostic forms should be part of the pre-interview mailing, EXCEPT:
A) *Eating behavior inventory*
B) *Child and family background*
C) *Family and marital assessment*
D) *Screening device for child behavioral difficulties*

15. Effective practice with children requires that the choices of interview activities and structured measures be consistent with the child's age and presenting problems.
A) *True*
B) *False*

16. A child's motivation to lose weight may include all of the following, EXCEPT:
A) *Reducing teasing*
B) *Improving in sports*
C) *Getting better grades*
D) *Being more fashionable*

17. Which of the following should NOT occur during the informing interview?
A) *Present findings*
B) *Explore family dynamics*
C) *Preview treatment strategies*
D) *Provide diagnostic forms and checklists*

18. Treatment goals remain the same regardless of the patient's typologic profile.
A) *True*
B) *False*

19. Regarding the effectiveness of weight reduction treatment for children, positive outcomes are frequently observed
A) *one year post-treatment.*
B) *three years post-treatment.*
C) *five years post-treatment.*
D) *15 years post-treatment.*

20. For type 3 obesity treatment in children, goals include all of the following, EXCEPT:
A) *Weight reduction*
B) *Weight maintenance after loss*
C) *Improved psychosocial functioning*
D) *Acquiring nutritional and fitness knowledge*

21. There is general consensus that the most effective weight-loss programs for children include all of the following, EXCEPT:
A) *physical activity.*
B) *caloric reduction.*
C) *dietary supplements.*
D) *behavior modification.*

22. Research findings are inconsistent regarding the long-term effects of exercise on weight loss. However, all of the following have been suggested as results of exercising, EXCEPT:
A) *Improved self-image*
B) *Improving metabolic rate*
C) *Enhanced dieting motivation*
D) *Increased electronic entertainment*

23. Which of the following is NOT typically part of behavioral weight-loss methods with children?
A) *Response cost*
B) *Desensitization*
C) *Stimulus control*
D) *Contingency contracting*

24. If there has been limited or no weight loss after three to four months of treatment, the counselor might respond by
A) *reviewing the accuracy of monitoring.*
B) *refocusing on maintaining current body weight.*
C) *recognizing the family's and child's disappointment.*
D) *All of the above*

25. The key to effective multidisciplinary collaboration when caring for the obese child is to
A) *remain focused on one's own specialty.*
B) *rely on the parents to relay information.*
C) *delay interaction until absolutely necessary.*
D) *begin with genuine appreciation and respect.*

Be sure to transfer your answers to the Answer Sheet located on page 132.
DO NOT send these test pages to NetCE. Retain them for your records.
PLEASE NOTE: Your postmark or facsimile date will be used as your test completion date.

Demystifying Dissociation: Principles, Best Practices, and Clinical Approaches

Audience
This course is designed for psychotherapists, counselors, social workers, and other helping professionals practicing in a variety of modalities and from a variety of traditions.

Course Objective
The purpose of this course is to equip clinicians with the knowledge and skills that they need to better understand dissociation and its connection to trauma.

Learning Objectives
Upon completion of this course, you should be able to:

1. Define dissociation in a trauma-focused manner.
2. Describe the impact and manifestations of trauma and dissociation on the brain.
3. Identify common myths about working with dissociative clients in psychotherapy, including historical roots.
4. Outline diagnostic criteria for dissociative disorders.
5. Describe the Dissociative Profile exercise.
6. Describe the screening tools and inventories available for use in clinical settings regarding dissociation.
7. Apply personal metaphor and parts work in the care of clients with dissociation.
8. Outline the similarities between addiction and dissociation and how they can be framed.
9. Discuss key components of successful treatment planning for clients with dissociation.
10. Implement approaches for early and later phases of dissociative disorder treatment.

Faculty
Jamie Marich, PhD, LPCC-S, LICDC-CS, REAT, RYT-500, RMT, (she/they) travels internationally speaking on topics related to EMDR therapy, trauma, addiction, expressive arts, and mindfulness while maintaining a private practice and online education operation, the Institute for Creative Mindfulness, in her home base of Warren, OH. She is the developer of the Dancing Mindfulness approach to expressive arts therapy and the developer of Yoga for Clinicians. Dr. Marich is the author of numerous books, including *EMDR Made Simple*, *Trauma Made Simple*, and *EMDR Therapy and Mindfulness for Trauma Focused Care* (written in collaboration with Dr. Stephen Dansiger). She is also the author of *Process Not Perfection: Expressive Arts Solutions for Trauma Recovery*. In 2020, a revised and expanded edition of *Trauma and the 12 Steps* was released. Two additional books are scheduled for publication in 2022: *The Healing Power of Jiu-Jitsu: A Guide to Transforming Trauma and Facilitating Recovery* and *Dissociation Made Simple*. Dr. Marich is a woman living with a dissociative disorder, and this forms the basis of her award-winning passion for advocacy in the mental health field.

Faculty Disclosure
Contributing faculty, Jamie Marich, PhD, LPCC-S, LICDC-CS, REAT, RYT-500, RMT, has disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

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Sarah Campbell

Division Planners/Director Disclosure
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Social Workers participating in this intermediate to advanced course will receive 10 Clinical continuing education clock hours.

NetCE designates this continuing education activity for 10 CE credits.

NetCE designates this continuing education activity for 3 NBCC clock hours.

NetCE designates this continuing education activity for 10 continuing education hours for addiction professionals.

Individual State Behavioral Health Approvals

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- Return your Customer Information/Answer Sheet/Evaluation and payment to NetCE by mail or fax, or complete online at **www.NetCE.com/PAMHP22**.
- A full Works Cited list is available online at www.NetCE.com.

EVIDENCE-BASED PRACTICE RECOMMENDATION

Sections marked with this symbol include evidence-based practice recommendations. The level of evidence and/or strength of recommendation, as provided by the evidence-based source, are also included so you may determine the validity or relevance of the information. These sections may be used in conjunction with the study questions and course material for better application to your daily practice.

INTRODUCTION

Dissociation is great puzzlement to many clinical professionals, and often it is through no fault of their own. Many graduate training programs skim over the dissociation part of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) and teach that dissociative identify disorder (DID) is extremely rare. Likewise, very little may be included on trauma as well, so the potential association with dissociation is often left unexplored.

Since 2000, there has been more interest and a greater respect for trauma and what is called trauma-informed and trauma-focused care in the clinical professions. The term trauma comes from the Greek word meaning wound, and in its most general sense, it can be defined as any unhealed wound of a physical, emotional, psychological, sexual, or spiritual nature. Like physical wounds, other types of trauma can be experienced in various degrees and levels of intensity. If left unhealed or unprocessed, problems can result that impair an individual's lifestyle or way of being in the world. The most common trauma-related diagnosis is post-traumatic stress disorder (PTSD), although other clinical diagnoses (e.g., adjustment disorders, reactive attachment disorder, personality disorders) can also have their root in unhealed trauma. As trauma awareness and understanding increases, the field is also realizing that many other diagnoses can have a root in unhealed trauma or their severity can be exacerbated by unhealed trauma.

Some have hypothesized that wherever there is trauma, some aspect of dissociation exists, reflected in the idiom: "If trauma is walking in the door, dissociation is at least waiting in the parking lot." If systems of care are truly going to be trauma-informed (i.e., understanding how unhealed trauma affects the brain and manifests in human distress and behavior), they should also work toward being more dissociation-informed. The hope is that all systems of human services can at least be trauma-informed, yet many clinicians are also in a position to be trauma-focused in their care. Trauma-focused care recognizes the role that unhealed trauma plays in human pathology, and trauma-focused clinicians develop treatment plans using the modalities in which they are trained to actively target sources of trauma and work to bring about resolution [1]. To deliver trauma-focused care, competency in working with dissociation is imperative.

The aim of this course is to equip clinicians with the knowledge and skills that they need to better understand dissociation and its connection to trauma. These knowledge and skills will allow clinicians to be more trauma-informed and trauma-focused in their approach to clinical work. There can be frustration that comes with addressing dissociation, which often originates from myths and misinformation in the field—and teachings on dissociation from some sources that can be too technical.

This phenomenological approach will hopefully empower clinicians to more effectively address dissociation and its various manifestations in clinical practice. Having a sense of dissociation's inherent normalcy in the human experience is a critical aspect of demystifying dissociation. The more one is willing to be introspective throughout this course, as opposed to just reading through the content, the more that can be gained from the course. A series of guided exercises are designed to assist in this process.

***Author's Note**: The voice with which I am guiding you in this course is one of a trauma and dissociation specialist, trainer, and author. I am also a woman in long-term recovery from a dissociative disorder. I was diagnosed in graduate school when I struggled with internship due to my own unhealed trauma. I endeavor to use my lived experience in concert with modern scholarship about dissociation. Personal stories and experiences will be included throughout the text in italics.*

FUNDAMENTALS OF DISSOCIATION

DEFINITIONS AND ORIGINS

The word dissociation is derived from a Latin root word meaning to sever or to separate. In clinical understanding, dissociation is the inherent human tendency to separate oneself from the present moment when it becomes unpleasant or overwhelming. Dissociation can also refer to severed or separated aspects of self. In common clinical parlance, these separations may be referred to as "parts." Older terminology (e.g., "alters," "introjects") may still be used, although parts is generally seen as more normalizing and less shaming as a clinical conceptualization strategy. Just like all humans dissociate, all humans have different parts or aspects of themselves. In cases of clinically significant dissociation, the separation of parts is typically more pronounced.

The fact that dissociation encapsulates two meanings—the separation from the present moment that can manifest in a variety of ways and the separation from aspects of self—can make learning about and understanding it rather confusing. Consider, however, that the general purposes of dissociation are the same in both constructs: to protect oneself and to get one's needs met. Even the most innocuous example of a person "zoning out" or daydreaming can be seen through this lens. Individuals can go away in their minds to protect themselves from the distress of the present moment, whether that distress shows up as boredom, pain, or overwhelm. Parts, or aspects of self, will either develop over time or fail to integrate with the total self (depending on defining theory) to protect the self or to get needs met, typically needs that primary caregivers are not providing. Underlying theories of dissociation will be discussed in detail later in this course.

One of the leading psychiatric scholars in the treatment of dissociation is Dr. Elizabeth Howell. In her book *The Dissociative Mind*, she contends [2]:

> Chronic trauma...that occurs early in life has profound effects on personality development and can lead to the development of dissociative identity disorder (DID), other dissociative disorders, personality disorders, psychotic thinking, and a host of symptoms such as anxiety, depression, eating disorders, and substance abuse. In my view, DID is simply an extreme version of the dissociative structure of the psyche that characterizes us all. Dissociation, in a general sense, refers to the rigid separation of parts of experience, including somatic experience, consciousness, affects, perception, identity, and memory.

This contention has inspired scores of clinicians. The key to better understanding dissociation truly rests in normalizing it [2; 3].

When contemplating dissociation in a general sense, common expressions that come to mind include daydreaming, "zoning out," inability to make appropriate eye contact, escaping to imaginal or fantastical landscapes in the mind, or losing emotional connection to a story being told. Some people will start to yawn, fall asleep, or lose appropriate volume in their voice when distressed. It is very likely that most (if not all) people have done one or more of these things in their lives and may even do them on a regular basis, with or without a clinically significant dissociative diagnosis. Modern-day examples of dissociation include watching too much television, playing on the smartphone, or mind numbingly scrolling through social media. These activities are not dissociative in and of themselves but can be used in a dissociative manner. Even activities used in therapy for emotion regulation, including guided visualizations, can be dissociative because they remove the practitioner from their present surroundings and experiences. While the intention may be solid and indeed very helpful to many people, consider how a person could continue to use such an exercise as an escape instead of as a healthy coping strategy.

In normalizing dissociation, it is useful to look at the construct of adaptive and maladaptive in describing dissociative phenomenon. These distinctions of adaptive and maladaptive are essential to eye movement desensitization and reprocessing (EMDR) therapy [4]. As constructs, they are similar to the descriptors healthy and unhealthy but with much less of a value judgment. Furthermore, what is adaptive to one person may not be adaptive to another person. What was adaptive at one point in one's life may not be adaptive at other points in his or her life. Consider this example as it relates to dissociation: For a young child growing up in a dysfunctional home, daydreaming was adaptive because it helped him/her survive the perils of this upbringing. However, as an adult, chronic daydreaming can impede one's ability to work and support oneself, keeping one removed from certain realities that need to be faced.

Another example of commonplace dissociation is binge watching television. This practice could be dissociative in a maladaptive sense, but it could also be a needed avenue for self-care that helps a person disconnect from the rigors of work life and day-to-day responsibilities, depending on the relationship and intention with the activity. Clinicians can assist clients in making this distinction only after considering how these patterns show up in their own lives. For example, a clinician may regularly binge watch television and feel like it is a healthy outlet for rest. When the clinician is dealing with intensity in their feelings and life, it is important that they take a break. One could argue that it would be more dissociative, as an avenue to escape feelings, if the clinician dove into doing more work to keep from being present. Work can be tricky for individuals to evaluate, because while it is often an inherently positive activity, it can be taken to a maladaptively dissociative place. A later section of this course will more fully examine the intricate relationship between dissociation and addiction, but briefly, addictive behaviors generally begin as dissociative coping, usually in response to trauma or to distress.

In normalizing dissociation, it is also imperative to examine the notion of parts or aspects of self. Again, this will be more fully explored later in this course, but before starting this activity, take a moment to examine whether or not you relate to having different parts, sides, or aspects of yourself. Many use the common terminology of "inner child," vis-à-vis the more rational, presenting adult. If you have ever used this language, you are already recognizing the construct of parts. Some people, especially those who struggle with addiction, may reference having a "Dr. Jekyll and Mr. Hyde" phenomenon happening within them. Some people will even say that their sadness, anger, or other emotional experience can take on a life of their own, which can also speak to the separation of parts, or that they feel "cut off" from their bodies due to an injury, illness, or other distress. As illustrated in the passage from Dr. Howell, diagnoses like DID or other dissociative disorders refer to a more rigid separation of this very natural part of the human condition [2].

TRAUMA, DISSOCIATION, AND THE BRAIN

There have been many advances in better understanding trauma and dissociation through a neurobiologic lens. While this section will conclude with some of that research, it is important to obtain a basic understanding of the human brain and how unhealed trauma can impact its functioning. The simplest explanatory model that seems to work the best for clinicians to gain this understanding is the triune model of the human brain, originally developed by psychiatrist Paul MacLean [5]. Many modern scholars (e.g., Bessel van der Kolk, Daniel Siegel) continue to use it as a base of explanation.

The triune brain model espouses that the human brain operates as three separate brains, each with its own special roles—which include respective senses of time, space, and memory [5]:

- The R-complex or reptilian brain: Includes the brainstem and cerebellum. Controls instinctual survival behaviors, muscle control, balance, breathing, and heartbeat. Most associated with the freeze response and dissociative experiences. The reptilian brain is very reactive to direct stimuli.
- The limbic brain (mammalian brain or heart brain): Includes the amygdala, hypothalamus, hippocampus, and nucleus accumbens (responsible for dopamine release). The limbic system is the source of emotions and instincts within the brain and responsible for fight-or-flight responses. According to MacLean, everything in the limbic system is either agreeable (pleasure) or disagreeable (pain). Survival is based on the avoidance of pain and the recurrence of pleasure.
- The neocortex (or cerebral cortex): Contains the frontal lobe. Unique to primates and some other highly evolved species like dolphins and orcas. This region of the brain regulates our executive functioning, which can include higher-order thinking skills, reason, speech, and sapience (e.g., wisdom, calling upon experience). The limbic system must interact with the neocortex in order to process emotions.

Many strategies in the psychotherapeutic professions work primarily with the neocortex. For a person with unprocessed or unhealed trauma symptoms, the three brains are not optimally communicating with each other when the limbic system gets triggered or activated [6]. During periods of intense emotional disturbance, distress, or crisis, a person cannot optimally access the functions of the neocortex because the limbic, or emotional brain, is in control. In essence, a dissociative phenomenon occurs. Blood flow slows to the left prefrontal cortex when the limbic system is triggered to some degree. Thus, a person may be aware of what is happening around them, and yet that disruption or dissociation from the brain's innate totality impedes a person's capacity to process or make sense of it.

Consider these examples that may be familiar to your clinical practice: Have you ever tried to reason with someone in crisis? Have you ever asked someone who has relapsed on a drug or problematic behavior, "What were you thinking?" Have you ever tried to be logical with someone who is newly in love or lust? Attempting any of this is like trying to send an e-mail without an Internet signal. You may have awesome wisdom and cognitive strategies to impart and you can keep clicking send, but the message is not ever going to get through. Moreover, because the activated person has awareness, they may grow increasingly annoyed by persistence, which can activate the limbic responses even further.

Triggers are limbic-level activities that cannot be easily addressed using neocortical interventions alone. If a stimulus triggers a person into reaction at the limbic level, one of the quickest ways to alleviate that pain/negative reaction is to feed the pleasure potential in the limbic system. As many traumatized individuals discover, alcohol use, drug use, food, sex, or other reinforcing activities are particularly effective at killing/numbing the pain. For children growing up in the high distress of a traumatic home, dissociation can become the brain's natural and preferred way to escape the pain. Cultural commentators and scholars have referred to dissociation as a "gift" to the traumatized child for this reason [7].

Dissociation, trauma-related disorders, and addiction are inter-related because dissociation is a defense that the human brain can call upon to handle intense disturbance. People dissociate in order to escape—to sever ties with a present moment that is subjectively unpleasant or overwhelming, stemming from unhealed trauma and its impact. In referencing the triune brain model, dissociative responses—often conceptualized as similar to freeze responses—are even deeper than the limbic brain, taking place in the R-complex or brainstem [8]. This is a testament to their primary, protective quality.

Precise neurobiologic explanations of dissociative phenomenon are still being investigated, and understanding remains incomplete. In their comprehensive review, Krause-Utz, Frost, Winter, and Elzinga summarize that there is a suggested link between dissociative symptoms and alterations in brain activity associated with "emotion processing and memory (amygdala, hippocampus, parahippocampal gyrus, and middle/superior temporal gyrus), attention and interoceptive awareness (insula), filtering of sensory input (thalamus), self-referential processes (posterior cingulate cortex, precuneus, and medial prefrontal cortex), cognitive control, and arousal modulation (inferior frontal gyrus, anterior cingulate cortex, and lateral prefrontal cortices)" [9]. Electrical neuroimaging studies show a correlation between the temporoparietal junction—an area involved in sense of self, agency, perspective taking, and multimodal integration of somatosensory information—and dissociative symptoms, and specific forms of dissociation are connected with brain areas in question [10].

While the neurobiologic implications of dissociation are discussed in detail later in the course, this section has endeavored to give enough base knowledge to understand that trauma and dissociation are inter-related. Basically, dissociation can be described as an inherent mechanism of the human brain that can be called upon to manage distress. The higher the degree and the more intense the trauma, the greater the likelihood that some aspects of dissociation, whether clinically significant or not, can manifest.

DEBUNKING MYTHS ABOUT DISSOCIATION

Dissociative identity disorder or DID, formerly referred to as multiple personality disorder, can make for fascinating plot points and opportunities for characterization in the media. Unfortunately, these media portrayals have fed perpetuated myths and misconceptions about dissociative disorders that persist in the general public and in mental health professions. In many cases, the media only showcases the most extreme or sensationalized cases of DID [11]. Many clinicians do not realize that their clients are experiencing distress that can be described through the lens of a dissociative disorder because their clients are not presenting with symptoms that look as extreme or severe as the largely fictionalized *Sybil* or the highly sensationalized portrayal in the 2016 film *Split*. If clinicians are only using these media portrayals as their point of reference, they may be unnecessarily frightened to treat their dissociative clients, fearing violence, self-injury, or other expressions they may not feel prepared to handle.

Many individuals who dissociate express trepidation about making their condition known to the general public; this can even include fear about coming out to one's partner or one's therapist in fear of judgment.

For example, I, a mental health professional active in addiction and trauma care, found "coming out" fully as a person with a dissociative disorder was much scarier than being out as someone in recovery from addiction or being out as a bisexual woman. There was a great fear that I would no longer be taken seriously, especially among professional colleagues, if I was public and open about my experiences.

In 2010, Jaime Pollack started the Healing Together Conference with the goal of providing survivors of complex trauma who identify as having a dissociative disorder a place where they could feel safe enough to share freely. Pollack and others did not feel welcome to share from personal experience as non-clinicians at professional conferences that address trauma and dissociation. Even professional clinicians have experienced a similar sense of disregard for the lived experience. Spaces like Healing Together give people with dissociative disorders from a variety of professional backgrounds a chance to be open and share freely, something that can be a rarity in this world.

There are a variety of myths and misconceptions regularly encountered from clinical professionals and from colleagues who also work as trauma trainers. The most common are the usual fears about people with dissociation acting out and causing harm to self or to others, although clinical experience and evidence suggests that there is no more risk of these behaviors than with other diagnoses [12]. The next set of myths revolves around treatment. There can be a sense that people with clinically significant dissociation, especially DID, do not respond well to treatment and cannot live full and functional lives. In many cases, professionals who hold such myths generally do not have enough grounding in trauma-informed or trauma-focused care to realize the connection between unhealed trauma and the successful treatment of maladaptive dissociation. The other major treatment myth is that for successful treatment of DID or another dissociative disorder to occur, there must be an integration of the various alters or parts into one presenting person. While this is discussed further in the section on treatment, for the time being, please know that many exist functionally and adaptively with the help of their system, and integration in the simplistic sense is never achieved—nor does it need to be.

Many individuals with DID or other dissociative disorders do not shun the word integration, but instead view integration as a healthy sense of cohesion or communication between the system. The term working wholeness may be preferred. However, when working with a client with dissociation, integration can be quite a triggering word, because previous providers may have used the term incorrectly or abusively, making them believe that they must integrate if they want to live a normal life. This can cause upheaval in the system, especially if more vulnerable parts believe they are going to be forced out. Consider this metaphorical comparison: For many years the United States was referred to a "melting pot" of sorts, suggesting the people from various backgrounds came together and blended. This metaphor has garnered criticism because a melting pot suggests that various peoples come together, melt down, and then a single, ideal alloy of an "American" emerges. While some people would like this to be so, it is neither culturally inclusive nor sensitive. An alternate metaphor refers to the United States as a salad or a bowl of stew, indicating that each ingredient brings their own unique flavor while contributing to the whole. This metaphor is also workable when referencing dissociative systems.

Many individuals with clinically significant dissociative disorders do not reach the "integration" debate stage of treatment with their providers because many mental health providers are not willing to take on their cases. Screening out for dissociation and making referrals is very common, leaving many with a message that they are "too much to handle." Often, individuals with dissociative disorders can be prematurely admitted into psychiatric facilities at the mention of self-harm or blanking out time. While clinical professionals should not go against their ethical training if there is a viable intent or a plan articulated for injury to self or others, bear in mind that suicidal ideation and self-harm can be a very normal complex trauma response and part of one's dissociative profile. In some cases, having these feelings normalized and a viable plan for addressing them developed is insufficient. Yet, many individuals who struggle with dissociative issues will not articulate struggles to their providers out of fear of being committed to an institution, which can be an unsafe place for someone with a dissociative disorder. Perhaps the biggest misconception in the mental health field is that dissociation

is not real, does not exist, or, if it does, is extremely rare. Not only is this an invalidating experience for individuals, they can end up receiving a host of other diagnoses that result in excessive or improper pharmacotherapy. To understand more about the invalidation factor, please read on to the next section, which discusses historical perspectives on dissociation, how to treat it, and how to diagnose it.

HISTORICAL PERSPECTIVES ON DISSOCIATION

The issue of dissociation and how to diagnose it has been historically shrouded in controversy in the psychological and helping professions, largely because trauma can make people uneasy. Giving people, especially children, trauma-related diagnoses can be an uncomfortable matter. When a child gets a diagnosis like attention deficit and hyperactivity disorder (ADHD) or bipolar disorder, the implication and suggestion of the medical model is that something is impaired with their brain. Medications, although often prescribed in concert with some kind of behavioral therapy, are typically emphasized as the solution. However, when a child receives a trauma-related diagnosis, generally someone is responsible—a parent or guardian who exposed them to harm, the school system, or even society at large. This meanders into uncomfortable territory for many people. Further, most medications used in the treatment of dissociative disorders focus on comorbid symptoms (e.g., depression, anxiety); psychotherapy remains the cornerstone of treatment.

Although clinically significant dissociation can develop in adulthood as a response to trauma or other distress, its etiology is usually traced to significant, complex trauma in early childhood. Often, this trauma is of a developmental nature, meaning that it happened when a child was still vulnerable and often involved betrayal by someone they loved or trusted. Useful distinctions between trauma as an incident or event (typically associated with the PTSD diagnosis as presented by the DSM) and complex or development trauma is that complex trauma experiences [13]:

- Are repetitive or prolonged
- Involve direct harm and/or neglect or abandonment by caregivers or ostensibly responsible adults
- Occur at developmentally vulnerable times in the victim's life, such as early childhood
- Have great potential to severely compromise a child's development

Initially, even Freud seemed to be convinced of trauma's impact in his early investigation of dissociative phenomenon. As is well-established in the history of psychology, widespread pressure from his influential colleagues resulted in Freud backing down from this hypothesis and instead focusing more on repression and subconscious desires as etiology for mental and emotional disorders. The gendered label of hysteria was put into wide use, a construct that modern trauma scholars now view as a manifestation of complex trauma and dissociation [14]. Much of the early thinking in the field, especially from Pierre Janet, suggested that there is an element of dissociative phenomenon in all mental and emotional disorders, even conceptualizing what would come to be known as schizophrenia through this lens [12]. Other French colleagues of his era proposed similarly.

The dissociative disorders formally debuted in the DSM-III in 1980. The PTSD diagnosis also appeared in that edition as an anxiety disorder, but dissociative disorders were presented as a separate category. Although new to DSM-III, their discussion and inclusion were not new to the field [15]. With every iteration of the DSM since then, up to the current DSM-5, there has been intense debate and scrutiny over the dissociative disorders as being worthy of inclusion. In reality, many leaders of the field, especially those on DSM work groups, openly doubt their existence [16]. The purpose of this course is not to engage in this debate—clearly the position of this course is that dissociative disorders do exist and are potentially more widely prevalent than once thought and reported. However, major medical and psychological groups continue to report that dissociative disorders are extremely rare. This approach to dissociative disorders and resistance to their existence is borne from the same discomfort about trauma and responsibility that Freud encountered in the early days of his work. Although the general phenomenon of dissociation can show up in a wide array of clinical diagnoses, it has been established that unhealed trauma is a major etiologic factor in the development of clinically significant dissociative disorders [17].

Clinicians interested in reading more about the history and debate around dissociation, trauma, and memory are directed to Anna Holtzman's article exploring the "memory wars" in the field of psychology, written in the wake of the Harvey Weinstein trials (***Resources***). The memory wars refer to decades of debate in the field about the trustworthiness of memory, particularly as it relates to accusations of abuse by survivors of trauma. She discusses the history of the False Memory Syndrome Foundation, founded by the parents of Dr. Jennifer Freyd (a former president of the International Society for the Study of Trauma and Dissociation [ISSTD]). Dr. Freyd accused her parents of abuse and their response was to establish an organization to discredit survivors of abuse.

As long as unhealed trauma continues and people are threatened by its impact or made to feel responsible for it, there is a likelihood that such debate, even in scholarly settings, will continue. The general state of the evidence suggests that not only are dissociative disorders real, the prevalence is higher than previously thought [18].

While the ISSTD and mainstream advocates in the field of dissociation have promoted research and scholarship to prove that dissociation exists, there is a concern by advocates that such a focus may measure the experiences of survivors without adequately including their voices into the advocacy. In the spirit of both/and, this course acknowledges that while scholarship and research are always critical to validate constructs in the mainstream, clinicians can get overwhelmed by trying to study dissociation in this manner. Normalizing dissociation as a human phenomenon and describing how trauma and distress can impact its manifestations should also be a part of the discussion moving forward.

DIAGNOSTIC PERSPECTIVES ON DISSOCIATION

Because dissociation can be explained as a coping device that crosses the line to being a maladaptive symptom for some individuals, it can be contended that trauma-associated dissociation manifests in a variety of clinical diagnoses. In this section, the primary diagnoses categorized in the Dissociative Disorders chapter of the DSM-5 are presented [19]. However, remember that these are not the only places where dissociation may show up diagnostically. Substance use and other disorders, for instance, have a strong dissociative component, and these will be handled separately in another section. There is also a great deal of confusion about where the line exists between distraction (that might be more commonly associated with diagnoses like ADHD, but can also appear in clients with PTSD) and dissociation. Moreover, in the most recent updates to the DSM, there is a new subtype of PTSD that specifically addresses dissociation, which will be included in this section.

For an individual to meet any of the diagnostic criteria that follow, dissociation must not be better explained by a phenomenon like intoxication. Thus, it becomes imperative for clinicians to understand the intricacies of how trauma and dissociation manifest, because many different diagnoses may be on the proverbial table for consideration.

The following sections have been reprinted with permission from The Infinite Mind [20]. These summaries are clinically sound (reflecting what appears in the DSM-5) while also being written in a language that the general public will likely find friendly.

DISSOCIATIVE IDENTITY DISORDER (DID)

DID, formerly called multiple personality disorder, develops as a childhood coping mechanism. To escape pain and trauma in childhood, the mind splits off feelings, personality traits, characteristics, and memories into separate compartments which then develop into unique personality states. Each identity can have its own name and personal history. These personality states recurrently take control of the individual's behavior, accompanied by an inability to recall important personal information that is too extensive to be explained by ordinary forgetfulness. DID is a spectrum disorder with varying degrees of severity. In some cases, certain parts of a person's personalities are aware of important personal information, whereas other personalities are unaware. Some personalities appear to know and interact with one another in an elaborate inner world. In other cases, a person with DID may be completely aware of all the parts of their internal system. Because the personalities often interact with each other, people with DID report hearing inner dialogue. The voices may comment on their behavior or talk directly to them. It is important to note the voices are heard on the inside versus the outside, as this is one of the main distinguishers from schizophrenia. People with DID will often lose track of time and have amnesia to life events. They may not be able to recall things they have done or account for changes in their behavior. Some may lose track of hours, while some lose track of days. They have feelings of detachment from one's self and feelings that one's surroundings are unreal. While most people cannot recall much about the first 3 to 5 years of life, people with dissociative identity disorder may have considerable amnesia for the period between 6 and 11 years of age as well. Often, people with DID will refer to themselves in the plural [20].

DISSOCIATIVE AMNESIA

The most common of all dissociative disorders and usually seen in conjunction with other mental disorders, dissociative amnesia occurs when a person blocks out information, usually associated with a stressful or traumatic event, leaving him or her unable to remember important personal information. The degree of memory loss goes beyond normal forgetfulness and includes gaps in memory for long periods of time or of memories involving the traumatic event [20].

DEPERSONALIZATION DISORDER

Having depersonalization has been described as being numb or in a dream or feeling as if you are watching yourself from outside your body. There is a sense of being disconnected or detached from one's body. This often occurs after a person experiences life-threatening danger, such as an accident, assault, or serious illness or injury. Symptoms may be temporary or persist or recur for many years. People with the disorder often have a great deal of difficulty describing their symptoms and may fear or believe that they are going crazy [20].

UNSPECIFIED DISSOCIATIVE DISORDER

Symptoms of unspecified dissociative disorder do not meet the full criteria for any other dissociative disorder. The diagnosing clinician chooses not to specify the reason that the criteria are not met [20].

OTHER SPECIFIED DISSOCIATIVE DISORDER (OSDD)

The other specified dissociative disorder category is used in situations in which the clinician chooses to communicate the specific reason that the presentation does not meet the criteria for any specific dissociative disorder [20].

TRAUMA- AND STRESSOR-RELATED DISORDERS

Many experts have expressed confusion that dissociative disorders were separately categorized instead of being included in the DSM-5 chapter grouping trauma- and stressor-related disorders. This may reflect some of the controversy and misunderstanding about dissociative disorders, or a lack of cohesion among the work groups that determine the categories in the DSM.

The chapter of trauma- and stressor-related disorders (which includes PTSD, acute stress disorder, adjustment disorders, reactive attachment disorder, and disinhibited social engagement) does make mention of dissociative symptomology as a potential feature of PTSD. In the DSM-5 version of the PTSD diagnosis, there is a qualifier option of PTSD with predominant dissociative symptoms. Dissociation can play out in all five symptom areas of the PTSD diagnosis, with flashbacks (under Criterion B, intrusion) specifically being described as a dissociative phenomenon. In DSM-5, depersonalization is defined as "persistent or recurrent experiences of feeling detached from, as if one were an outside observer of, one's mental process or body" (potentially an avoidance or negative mood/cognition manifestation) [19]. Derealization is defined as "persistent or recurrent experiences of unreality of surroundings" (potentially a part of the PTSD symptoms of intrusion, avoidance, or negative mood/cognitions) [19]. Although depersonalization and derealization still appear as their own diagnoses in the dissociative disorders category, those diagnoses should be ruled out if PTSD is the better explanation.

This is a gray area to navigate diagnostically, particularly because people struggling with clinically significant dissociative disorders likely meet the criteria for PTSD. With PTSD long being conceptualized as a more event-centric diagnosis that does not accurately encapsulate the depth of complex trauma, this qualifier may be more appropriate for adults who experience a traumatic event not connected to childhood or developmental trauma and develop these dissociative tendencies as a result.

THE DISSOCIATIVE PROFILE EXERCISE

The Dissociative Profile is a process used to evaluate and become aware of one's own tendencies to dissociate, both adaptively and maladaptively, and identify best strategies for directing one's knowing awareness back to the here and now. Therapists and helping professionals should first know their own dissociative profile and by doing this, will help clients to investigate their own [21]. This exercise is not only valuable as an exploratory device—the knowledge gleaned from it can become a valuable part of treatment planning, especially in managing distress that may rise between sessions. This approach is presented prior to discussion of formal psychometric measures with the intent that a general understanding and ability to identify association will help you truly understand these psychometrics and how to use them.

Before engaging in this exercise, please remember that every human dissociates; it is natural and normal. This is not intended to be an exercise in shaming; rather, it should focus on self-inquiry. To engage in the Dissociative Profile exercise, take the following steps, using the sample Dissociative Profile (***Table 1***) as a guide as needed.

Take out paper or open up a word processing program on your computer. Make two columns. Title the left-hand column "My Dissociative Tendencies," and title the right-hand column, "Strategies for Returning to the Present Moment."

Take as much time as you need to make a list of the ways in which you tend to dissociate—this can be general patterns like "zoning out or daydreaming when I'm bored," or "spending time on Facebook wondering what everyone else is doing." You can take this inventory a step farther by noting if these strategies or behaviors are adaptive, maladaptive, or both (depending on context). Also note, perhaps, how often you engage in these dissociative strategies and if you have knowing awareness about what triggers them (e.g., boredom, emotional pain, overwhelm, conversations with certain people).

After the left column feels complete, go to the right column and beside each item on the left, make some notes about what helps you return to the present moment when you need to. This can be more intrinsic skills (e.g., my mindfulness practice, especially grounding with solid objects), or more externally motivating factors (e.g., hearing my child call out that they need me). Remember that this is not an interrogation; it is simply a true assessment of where you stand. You are also free to be honest and note that you are not sure yet how to draw yourself back to present moment awareness when you get stuck in certain patters.

SAMPLE DISSOCIATIVE PROFILE EXERCISE	
My Dissociative Tendencies	**What Helps Me Return to Present Moment**
Daydreaming when I'm bored. This was adaptive when I was a kid; it's how I survived my parents' fighting. Somewhat of a problem/maladaptive now, as it can keep me from paying attention at work or with the kids.	Telling myself to "snap out of it" helps sometimes. This is something I'd like to work on though, because it can be hard to get out of the dream world.
Playing too much Candy Crush on the phone. Boredom also seems to trigger this. Doesn't seem to be a problem at the level of addiction or anything; I just know I do it.	Sometimes my eyes get too strained or tired, and that helps me put it down. When I know I have something more exciting/stimulating to work on, I stop. This can include having a conversation with people I enjoy.
Saying "it's no big deal" to my own therapist whenever I get too emotional. It's clear that this protected me at home growing up (adaptive), but I know it gets in the way of me doing deeper work	Having my therapist, who I fundamentally trust, gently call me out on it seems to help. When she can guide me through one of her mindfulness exercises encouraging me to notice my body and sit with whatever is coming up, I make steps in the right direction.
Problems paying attention when I drive (only sometimes). I'm not sure if this is dissociation or just general distraction. Either way, it does seem to happen when I'm overwhelmed.	Playing music I like in the car helps. I haven't yet taken my therapist's suggestion of taking a few deep breaths before I start driving regardless of how I'm feeling; perhaps I should try that.
Source: Author	*Table 1*

After finishing your own dissociative profile, take a moment to notice whatever you notice. Is there anything that surprises you? Is there anything you ought to consider sharing with your own therapist, friend, partner, or members of your support system? How can you use what you discover here to assist you in your own personal development and goals or intentions for healing, whatever those may be?

If you are guiding a client through this exercise, be open to debriefing their discoveries with them and developing a plan of action. This can form a solid base for engaging in treatment planning. Moreover, many trauma-focused approaches to therapy stress the importance of having a skills-and-strategies plan for between sessions so the client stays as safe as possible, especially if distress arises in between sessions. Engaging in the Dissociative Profile exercise gives you and your client a general sense of where they stand in terms of existing adaptive skills, and what they need to build for more adaptive engagement with the present moment.

FOUNDATIONS OF WORKING WITH CLINICALLY SIGNIFICANT DISSOCIATION

The introduction and first section of this course are designed to provide a foundation to understand the phenomenon of dissociation and how it manifests in the human experience. With this foundation in place, this section seeks to take you deeper into some of the tools, models, and strategies that may be useful in clinical settings to optimally work with dissociation. These may also help to inform treatment planning, which is covered in a later section of the course.

WORKING WITH PSYCHOMETRICS

There are a variety of psychometrics and clinical interview guides available for clinicians to help in their identification of dissociation. It is important to keep in mind, as a trauma-focused clinician, many of these devices may be too interrogatory, Use good clinical judgment about whether some of these scales or measures are a good fit for your practice and your clients. They have all played a role in research and helping to validate the existence of dissociative disorders. However, taking a test for a psychometric evaluation can be triggering in its own right and can lead to a sense of confusion in a person's system if they are not properly guided.

EVIDENCE-BASED PRACTICE RECOMMENDATION

According to the International Society for the Study of Trauma and Dissociation, some measures commonly used in psychological testing can provide understanding of the patient's personality structure and may yield information useful in making the differential diagnosis between disorders often confused with DID, such as borderline personality disorder and psychotic disorders.

(https://www.isst-d.org/wp-content/uploads/2019/02/GUIDELINES_REVISED2011.pdf. Last accessed May 21, 2021.)

Level of Evidence: Consensus Statement/Expert Opinion

Dissociative Experiences Scale (DES)

At a minimum, clinicians should be familiar with the Dissociative Experiences Scale (DES), developed by Eva Bernstein Carlson and Frank Putnam [22]. This is a screening device, not a pure diagnostic evaluation, so a clinical interview will be necessary in order verify a diagnosis. Even as a screening device, the DES can be a conversation starter and vehicle for investigation, regardless of a person's specific diagnosis. The DES is a 28-item screen in which people are asked to give a general impression of how often they engage in a certain behavior or activity that can be potentially dissociative. Sample items include [22]:

- Some people have the experience of driving a car and suddenly realizing that they don't remember what has happened during all or part of the trip.
- Some people sometimes have the experience of feeling as though they are standing next to themselves or watching themselves do something as if they were looking at another person.
- Some people sometimes find that they become so involved in a fantasy or daydream that it feels as though it were really happening to them.

In the DES-II, people taking the evaluation rate these items by percentage (e.g., this happens to me about 20% of the time). In the DES-III, a basic 0–10 scale is adapted that corresponds with percentages; both versions are approved for clinical use.

To get an average score on the DES-II, you add up the total number of percentages and then divide by 28 (the number of items on the evaluation). Anything above 30% is generally considered to be cautionary for a clinically significant dissociative disorder. Anything greater than 40% is generally considered to be in the range of a clinically significant dissociative disorder. The DES is a starting point for clinicians and clients alike who are not familiar with addressing dissociation. Of course, nothing significant occurs at 30% or 40%; these are simply meant to be a guide for further diagnostic evaluation. One concern is that training programs in specialty therapies that use the DES to screen for dissociation can promote fear. For example, in the EMDR therapy community, some programs can promote the idea that people with a DES score greater than 30% are not appropriate candidates for EMDR or other types of deep trauma work. This is another of the myths and misconceptions. If the DES is greater than 30%, precautions should be taken and therapists can use the information gleaned from the DES to obtain a better sense of a person's relationships to dissociative responses based on their trauma.

After a client takes the inventory (preferably in office, so a therapist is available if they have any questions or concerns or get triggered), review the high item responses with them (greater than 30% to 40%) and ask them to talk more about when they started noticing that response over the course of their life and how it plays out for them presently. You may also ask if they notice how the specific behavior helps them to cope in any way. This information is more valuable, both in diagnosis and treatment planning (which also includes between-session safety planning) than any specific number.

In the spirit of getting to know one's own dissociative profile and relationship with dissociation, clinicians should take the DES for themselves first. It can be scored, but it may be more valuable to investigate how some of the higher scoring items fit into the Dissociative Profile exercise completed in the previous section. Other psychometrics in use clinically include:

- Structured Clinical Interview for Dissociative Disorders (SCID-D)
- Dissociative Disorders Interview Schedule (DDIS)
- Multidimensional Interview of Dissociation (MID)

Many of these tools are available online (***Resources***).

Fraser's Dissociative Table Technique

One of the classic concepts and articles in the field of dissociation studies is Fraser's Dissociative Table Technique. This concept was key to introducing the idea that a person with dissociative parts could get to know their system and how the various parts inter-relate with each other. Publication of Fraser's seminal article led to the popularization of the "conference table" metaphor for individuals with dissociation mapping out their parts and how they inter-relate. Fraser introduces a variety of other metaphorical possibilities as well for this mapping, with an emphasis that the table metaphor is only one part of his larger technique [23; 24]. In his core article, he discusses the use of the following approaches that make up the Dissociative Table [23]:

- Relaxation imagery: Using guided imagery as preparation and resourcing.
- Dissociative table imagery: Presented as the most important component of the exercise, this involves using the principle of imagery for a client to begin seeing their internal system take seats around a table (with modifications if tables feel unsafe). He credits this as a Gestalt-based technique.
- Spotlight technique: Sets up the idea of the spotlight being shined on the alter (or part) that is directly speaking to the therapist (with modifications if the light feels unsafe).
- The middleman technique: Establishes a system of communication between the alters or parts whereby one can speak on behalf of several others. This technique addresses the concept of co-consciousness, referring to two or more parts/alters sharing consciousness at the same time (not blacking out, "going away," etc.).
- Screen technique: A distancing technique whereby distressing memories can be viewed as if they are on a screen in the same room as the table.
- Search for the center ego state (inner self-helper): Establishing or revealing what may be referred to as the "core self" of the presenting self that has the strongest overview/sense of the entire system. This may be referred to as the presenting adult or the core self. Some controversy exists over whether or not it is necessary for some dissociative systems to have a center ego state.
- Memory projection technique: Another technique for furthering communication between the various alters/parts and their memories, using the various parts to bring in resources as other states may work to process or heal other memories on the screen.
- Transformation stage technique: A technique that can be used to transform a person's relationship to the memory and how they see themselves in the memory in terms of time, space, and age.
- Fusion/integration techniques: Although there is some controversy and trigger potential around integration in these techniques (as discussed previously), Fraser ultimately seems to be an advocate of integration using some of these fusion points as stepping stones.

The original article is a vital source of information for those interested in working more deeply with dissociation (***Resources***). Although it has its flaws, Fraser's Table can be a good starting point for clinicians who want direction on how to work with a system. The piece is also important because Fraser advocates for the reality of dissociation and how to work with it. He also addresses one of the controversies around dissociation—the idea that the therapist inserts parts or alters and their memories. While clinicians can guide people into identifying their own system and understanding how it works, it is vital that they do not force agendas and ideas on a person about what is happening. In EMDR therapy, there is a concept of therapists staying out of the way as much as possible and viewing themselves as facilitators or guides. Such an attitude is very helping, regardless of orientation, in helping people work with and identify their parts.

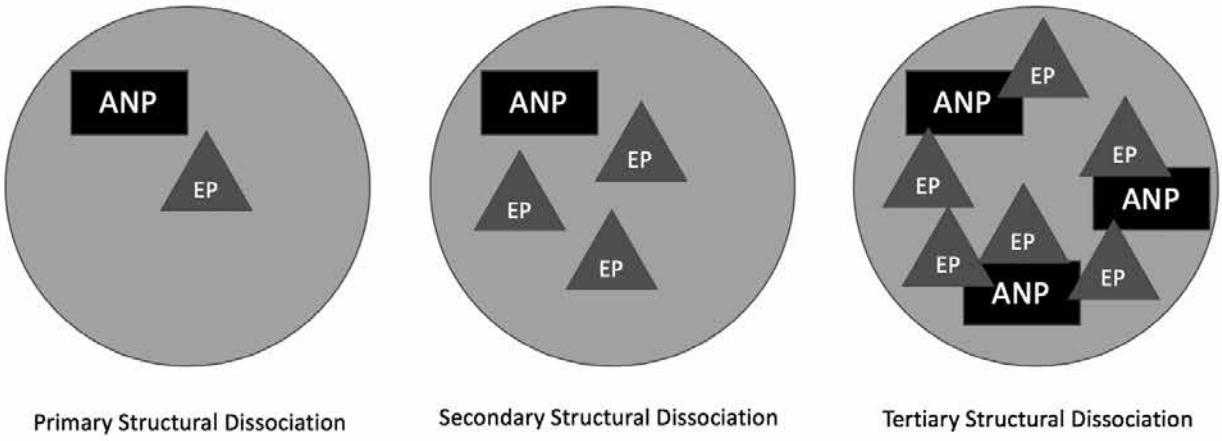
Theory of Structural Dissociation

While Fraser's Table is arguably one of the most popular approaches in the first wave of dissociation studies following the formal introduction of dissociative disorders into the DSM-III, the Theory of Structural Dissociation, developed by Onno van der Hart, Ellert Nijenhuis, and Kathy Steele, has become the focus of dissociation studies in the 21st century. Many trauma-focused professionals are advocates of this theory because, at its heart, it is non-pathologizing, positing that everyone is born with a fragmented or dissociative mind [25]. This is normal for infants, who get their various needs met in the absence of speech, language, or a more developed neocortex. Healthy development is defined by needs being consistently met engendering a natural integration of the personality structure. Yet, in the presence of unhealed trauma, disorganized attachment or developmental distress, a natural separation can remain.

The two main terms used in the Theory of Structural Dissociation are apparently normal personality (ANP), which is similar to Fraser's idea of the center ego state, and emotional part or personality. Emotional parts remain to protect or to meet a need, and some systems contain a more complicated interconnection of emotional parts and ANPs than others. While this is a bit of an oversimplification of how structural dissociation plays out systemically, it gives people new to this theory a good frame of reference. The model also makes use of the terms primary structural dissociation (which is more likely to be used in relation to PTSD and other trauma-related disorders), secondary dissociation (mainly related to personality disorders, dissociative disorders other than DID, and complex PTSD or developmental trauma), and tertiary dissociation (classically presented as DID). ***Figure 1*** provides a visual presentation of how this may play out.

The Theory of Structural Dissociation is certainly not without criticism. For example, psychiatric leader in the field of dissociation Dr. Colin Ross proposed an extensive modification to the theory. In his modification, Ross proposes that an emotional part does not have to be separate entities in and of themselves; instead, they can hold a fragment or experience like a thought, feeling, memory, or sensation. In this modification to the model, he expands on the Janetian idea that many disorders can be viewed through the lens of dissociation and that the idea of parts can be used as treatment conceptualization for conditions like substance use disorders and compulsive behaviors.

VISUAL PRESENTATION OF THE THEORY OF STRUCTURAL DISSOCIATION



ANP = apparently normal personality, EP = emotional part.

Source: Created by Author *Figure 1*

The theory of structural dissociation is a step in the right direction, and Ross' modifications expand the scope of what is possible and gives more permission to modify, which is essential in any facet of trauma-focused care. If rigidly interpreted, the original model is too inflexible, which is dangerous when applied to the phenomenon of systems that is fundamentally fluid and unique to the individual. Another consideration is the potentially offensive use of the adjective "normal" to describe the core self or presenting adult (ANP). This speaks to a reality of care in helping people to identify and to get to know their system; part of this is helping them to identify the terminology that best works for them and their understanding.

PERSONAL METAPHOR AND PARTS WORK

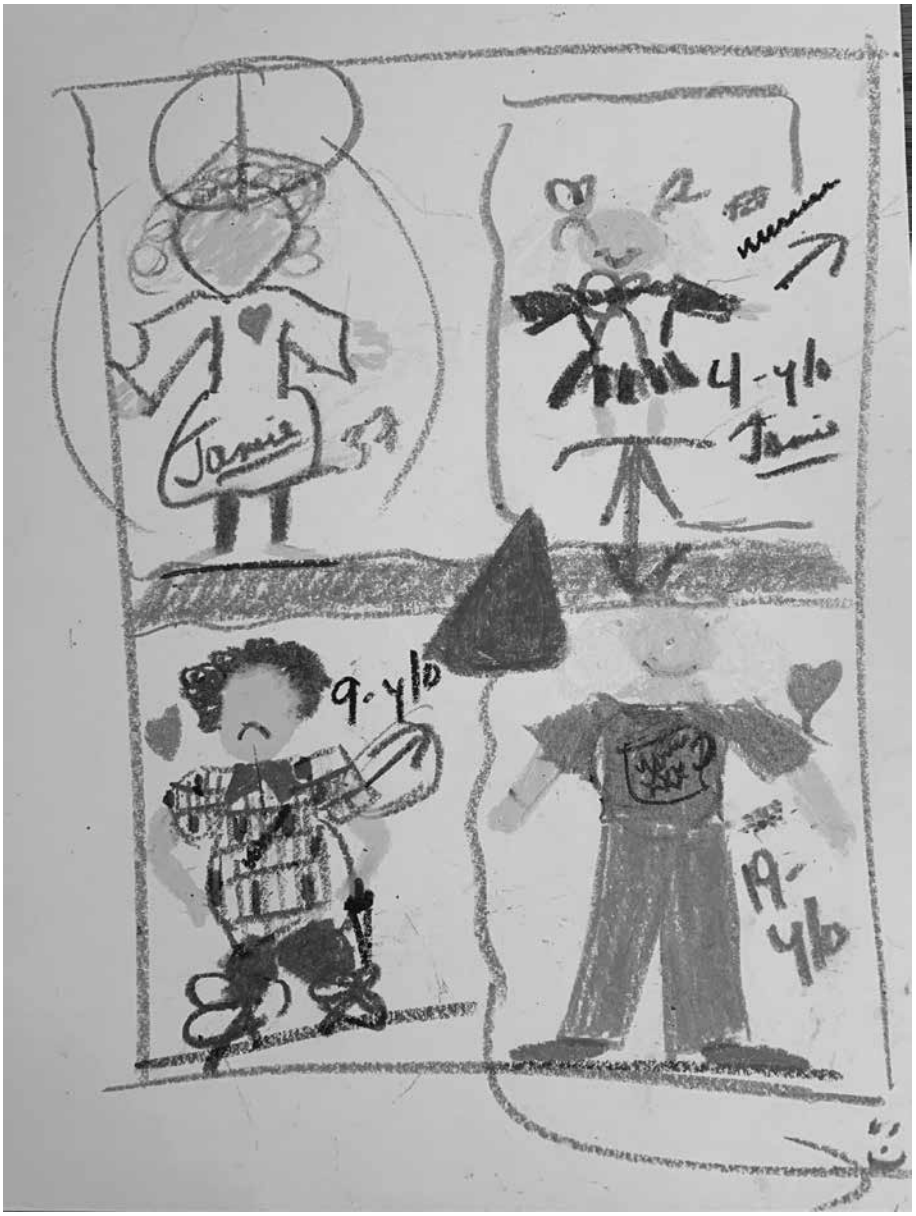
In working with clients with dissociation and identifying your own dissociative tendencies, clinicians can lean into the metaphorical possibilities that people can develop as they endeavor to understand their systems and how they work. Fraser's metaphors are a solid start, and the circles and shapes often used to represent structural dissociation are a good jumping off point. However, because creativity and expression are part of what defines the dissociative mind, using more creative metaphors may be better serving to you and to your clients [21].

Consider Ms. M, a client with an unspecified dissociative disorder. Ms. M is aware of a very defined inner world before coming into therapy, an inner world that she describes as a series of eight parts, all with their own name and purposes. Ms. M is delighted and surprised when her new therapist allows her to reference her parts and talk this way about them, as previous therapists discouraged her from using this language and conceptualization to refer to herself. "Show up as the adult," is something she heard more times than she ever cared to count.

The therapist asks Ms. M if she sees her parts in any specific way, and she answers immediately—"Yes, I see them as a dollhouse!" She goes on to describe that each part has their own room, and that when she wants them to come together and have a discussion, she senses that they all meet in the living room for a gathering of sorts. They use this mapping of her system as vital information in developing her treatment plan and approach. Interestingly, Ms. M did not require assistance in developing this metaphor—it was already innate within her, and she just needed permission and space to speak it. Other clients may require more of a guide or some examples to help them map out their parts and how they interplay within a system. This can be a creative exploration to understanding the self whether or not a person has a clinically significant dissociative disorder. Other metaphorical possibilities include:

- A car or van
- A circle of people, like you see in group therapy or a 12-step meeting
- Balloons

EXAMPLE OF METAPHORICAL EXPRESSIVE ARTS: THE CAR OR VAN



Source: Created by Author *Figure 2*

- Bouquet of flowers
- An orchestra or band
- Salad or stew
- Mosaics
- Hindu gods
- Gathering of saints
- The elements (i.e., earth, air, water, and fire)
- Keys on a ring
- Movie references (e.g., the houses used in *Harry Potter*, ensemble pieces like *Star Wars*, *Guardians of the Galaxy*, *Black Panther*, or *The Wizard of Oz*)
- Other pop culture references (e.g., television shows, songs on a playlist, characters from literature)

Figure 2 is an example of how visual representation or other art work can be used to help a person identify the parts of their system and how the inter-relate.

*The example in **Figure 2** is from my own healing journey. I find the car or the van to be a particularly useful metaphorical construct for helping me (and others) to understand my system and how the parts inter-relate. The way I know myself, my presenting adult or core self is always driving the car. However, if the various parts that ride along with me—who I call 4, 9, and 19 (representing their ages)—are not getting their needs met or are not being listened to, they can start to act out or withdrawal in the car. For me, they usually do things like tap on my shoulder, pull my hair, or scream until I pay attention to them and what they are trying to tell me. During an earlier period of my own healing, when the 4-year-old state had some serious healing work to do, it literally felt like she was sneaking behind me and covering my eyes with her hands just so I would pay attention to her. Clearly that caused some distress in my life, and I was not able to return to a place of equilibrium and optimal functioning until I engaged in therapeutic work that helped to heal the four-year-old, the actual age when my own traumatic experiences intensified.*

If you have ever been on a road trip with children, you know that keeping the peace can be a delicate balance. That is what my mind feels like when I am not listening to the consensus of my system. My 9-year-old part, for instance, is now good about telling us when we need to pull over and take a break. Although she originally developed as the part that held destructive behaviors like self-injury and suicidal thoughts, she has become the voice, in our healing, that tells us when we need to take care of ourselves. I have also used my 19-year-old part as a middlewoman of sorts (using the Fraser term) to broker peace between the 4 and 9 year old, who can annoy each other. Although 19, who has a baby-sitter quality, can be good at this, she has recently become very good at telling me when this tires her out too much and she needs her own space. Interestingly, I experienced a series of traumatic losses and also crossed the threshold into active addiction at 19 years of age, which is why she emerged or stayed around as a separate emotional part in my system. In healing, I have come to appreciate 19 as a strong, rebellious spirit who started to question the norms in which she was raised. Though this naturally brought about some distress for her, healing from this distress has helped to heal our whole system.

I hope this personal look at a few metaphorical possibilities has been helpful to you as you begin to conceptualize systems and parts work.

EXERCISE: MAPPING YOUR PERSONAL SYSTEM

Some clients will develop names for their parts, some will refer to them just as numbers or ages (as in the related experience), and others will refer to them just by descriptive qualities (e.g., my angry side, my soft side, the shame part, the inner child). Before beginning work with people using Fraser's Table, mapping in the spirit of structural dissociation theory, or one of these more creative metaphors, clinicians are encouraged to first do some mapping of their own internal system. In essence, this is an important continuation of the Dissociative Profile exercise.

To do this, first spend some time brainstorming, preferably writing down, how you see the parts of yourself. Remember that if you are stuck and nothing you are reading here resonates, you can use the basic presenting adult/inner child construct. If that is the case, how do you see them inter-relating? Staying with the idea of the table, perhaps you simply imagine them sitting down to interact over a cup of tea (or maybe your adult drinks the tea and you pour lemonade for the inner child).

Using paper and whatever basic art supplies you might have on hand (or even just a pen or pencil), begin to map how you see your internal system inter-relating. Doing this exercise does not diagnose you with a dissociative disorder. We all have parts, and seeing ourselves in this way can be a useful strategy for conceptualizing.

This exercise is not about being an outstanding artist—you are not being graded or judged. Simply think of this as drawing out a rudimentary map (and for that matter—the "map" itself could be another useful, metaphorical example). Some people like to use the idea of a circle (e.g., in some cases using plain white paper plates) as the backdrop for how they map out their system.

Take as much time as you require to complete the exercise. When you are though, consider journaling/writing some impressions or sharing them with a friend or colleague. What have you learned about how the various parts of your system inter-relate? Where is there room for a greater sense of communication or understanding in your system? Are there any blocks that are apparent to communication, cohesion, or wholeness?

An exercise like this offers creative, client-centered insight into working with parts or mapping a system, and it may certainly be used with clients, especially in the early stages of working together. What you learn here can phenomenally inform your strategies for treatment planning, which is covered in a later section. Perhaps you are already beginning to understand that what works for one part of the system for resourcing and healing may be different than what other parts in the system require. This will be valuable information for moving forward with treatment.

ADDICTION AS DISSOCIATION

EXPLORING THE SIMILARITIES BETWEEN DISSOCIATION AND ADDICTION

The addiction treatment field is making steady steps toward becoming more trauma-informed, but a deficit in professionals' ability to identify signs and symptoms of dissociation persists [26]. This is a problem, especially because of the strong interplay between dissociation and addiction. Many clients will be unaware of dissociative symptoms experienced in childhood because drinking and using drugs can become

their dissociative outlet in adulthood. Specific dissociative symptoms (e.g., "zoning out" at work or when emotionally overloaded) can develop in sobriety, and will require trauma-focused treatment. This phenomenon is relatively common in recovery circles, but it is often written off as "the pink cloud of recovery is passing," or "things are getting tough." When a person has a difficult time staying sober after getting sober, unhealed trauma is usually the culprit, and dissociation is a possible manifestation [6; 26].

In an article on the importance of dissociation-informed treatment, several other dissociative behaviors that manifest clinically but that professionals often fail to identify were identified [26]. They included clients struggling to pay attention in group, at 12-step meetings, or during lectures; a client changing tone (e.g., "It's like I'm suddenly speaking to a 5 year old") when something distressing comes up in sessions or in group; and other manifestations of blocking or resistant client behaviors. When a client gets belligerent or angry, this may be a sign of dissociation. In some clients, these types of behaviors could be a part speaking out to protect the system or to get a need met.

THE ADDICTION AS DISSOCIATION MODEL

The Addiction as Dissociation Model posits that addiction is a manifestation of dissociation. When children grow up in traumatizing, invalidating, or high-stress environments, the natural tendency is to dissociate in order to get needs met and protect themselves. If this happens frequently, the systems bond to this dissociative experience. At a later point in life, when chemicals or other reinforcing behaviors are introduced as possibilities, the chemical impact enhances the potency of an already familiar experience [27].

The term addiction is controversial in the modern era, because many critics feel that term is stigmatizing and not adequately trauma-informed [28]. To address this, the Addiction as Dissociation Model defines addiction as "the relationship created between unresolved trauma and the continued and unchecked progression of dissociative responses" [27]. In presentations where primary addiction treatment has failed to address trauma, dissociative experiences may produce a dissociative disorder or clinically significant symptoms of dissociation. Similarly, if dissociation in trauma has not been treated accordingly, addiction can often manifest [29]. The model contends that addiction develops in relation to trauma and dissociation, because trauma (cause) produces dissociation (effect).

According to the dissociation in trauma concept, there is a "division of an individual's personality, that is, of the dynamic, biopsychosocial system as a whole that determines his or her characteristic mental and behavioral actions" [29]. This distinction can also be seen in Waller, Putnam, and Carlson's taxometric analysis regarding nonpathologic and pathologic (e.g., adaptive and maladaptive) dissociative traits, of which "dissociation in trauma" would be represented by the latter [30]. Dissociation is what creates safety and ultimately pain relief in the moment of need. Trauma deeply impacts a person's psyche—extreme limits are pushed, and extreme reactions become necessary.

Mergler, Driessen, Ludecke, et al. examined the relationship between the PTSD dissociation subtype (PTSD-D) and other clinical presentations [31]. In a sample of 459 participants, the PTSD-D group demonstrated a statistically significantly higher need for treatment due to substance use problems, in addition to higher current use of opioids/analgesics and a higher number of lifetime drug overdoses. They ultimately concluded that PTSD-D is related to "a more severe course of substance-related problems in patients with substance use disorder, indicating that this group also has additional treatment needs" [31]. Such a connection seems like clinical common sense, but it has not been fully explored in the treatment literature.

Table 2 illustrates the tenets of the Addiction as Dissociation Model, a cohesive presentation of what exists in the literature on the inter-relation and interplay of trauma, addiction, and dissociation. While the literature clearly exists to support such a model, the model represents the first cohesive discussion of their interplay. The implications for treatment, which are summarized here and continued into the next section, are various.

IMPLICATIONS FOR TREATMENT

Case conceptualization that respects addiction as dissociation and the related interplays between trauma, dissociation, and addiction acknowledges that addictive behavior is a dissociative response that can elicit its own continued trauma. Moreover, case conceptualization in this model defines and validates the symptoms of addiction accurately and sees the survival behavior as adaptive. This model presents how trauma and dissociation become addictive (i.e., highlights the endogenous neurochemical processes that create the dependent bond in dissociation/addictive processes), how unconscious re-enactments and feedback looping are foundational to recidivism, and provides the justification for comprehensive treatments to directly incorporate a memory reconsolidation phase.

This contention does not suggest that time-honored interventions for treating addiction should be abandoned. However, these interventions should be fortified based on the light of evolving knowledge about trauma and dissociation [6]. Solutions worth highlighting include developing the power of nonjudgmental support communities and the importance of cultivating daily practices that lead to lifestyle change. As such, the community of mutual help fellowships also benefits from an understanding of trauma and dissociation. Peer support services and fellowships like Alcoholics Anonymous, Narcotics Anonymous, Al-Anon, and Adult Children of Alcoholics can provide a safe place to discuss solutions, as long as there is a reasonable degree of trauma-informed ethics in the culture of the meeting.

ADDICTION AS DISSOCIATION MODEL
Foundation: The Human Brain
Integration, a process by which separate elements are linked together into a working whole, is optimal for healthy brain functioning.
Adverse life experiences can cause traumatic and dissociative responses.
Temporal perceptions are distorted by overwhelming experiences.
Bottom up/survival-oriented processes over-ride the neocortex.
Dissociation, a bottom-up process, is the survival-driven act of disconnecting.
Addiction is on the dissociative spectrum and can be viewed as the act of connecting to dissociation.
Similar to traumatic memory, addiction memory creates intrusive symptoms and produces dissociation.
Endogenous opioid and cannabinoid neurotransmitters play a key role in dissociation and underlie addictive processes.
The Impact of Trauma-Dissociation-Addiction
Addictions are an extreme way to meet one's basic survival needs of safety, belonging, and nurturing. These are based on the hardwired emotions of fear, panic, anger, play, care, seeking, and lust.
Addiction is the relationship created between unresolved trauma and the continued and unchecked progression of dissociative responses.
Addictive behaviors can be considered self-abuse and produce dissociative symptomology through intrusive means.
Dissociative states can switch subtly and produce re-enactments/feedback loops.
Active addiction can be seen as a dissociative state whereby one is trying to meet their basic survival needs.
Addictive behaviors are survival-oriented, a substitute for attachment, seeking connection, stress management, and/or acts of self-soothing.
Due to the role of the endogenous opioid system, traumas that produce dissociative states can become addicting.
Treatment and Healing Implications
There are a variety of solutions that providers can consider for healing trauma-dissociation through the lens of Janet's three-stage model (i.e., symptom management, memory reprocessing, and maintenance), with respect to appropriate interventions for ego state/parts work.
Naltrexone helps prevent dissociative states from overpowering conscious awareness and helps manage symptoms of alcohol use disorder.
Time-honored strategies for treating addiction can still be useful for initial healing, although therapies that provide symptom management alone (e.g., top-down processes) undermine unconscious healing processes, which can lead to treatment resistance.
Healing traumatic-dissociative-addiction memory through memory reconsolidation is paramount. The reconsolidation generally involves body-centered therapies that address bottom-up processes and allows for holistic integration of lived experience.
Integration of experience and neurobiological disharmony is imperative for individuals to live a more adaptive life.
Source: [27] *Table 2*

Cognitive-behavioral therapy (CBT), dialectical behavioral therapy (DBT), and Seeking Safety (SS) are often used in the treatment of addiction. There is an evidence base for their use in successfully treating addiction and other substance use disorders [32]. Yet with the public health crisis of addiction continuing, it is clear that more should be done to address the root of the problem—trauma. Each of these approaches lacks a comprehensive definition of addiction, a conceptualization of where addiction fits into the psychopathology of mental health disorders, and an appreciation for how addiction is experienced as traumatic and how addiction relates to trauma and dissociation. Furthermore, they do not directly incorporate memory resolution or memory reconsolidation as an aspect of treatment.

Treatments like DBT and SS specifically offer PTSD symptom management, and they can be helpful to clients in early stages of treatment for addiction and for individuals with clinically significant dissociative disorders. However, they are not comprehensive therapies if one appreciates addiction as a manifestation of dissociation, as the memory resolution phase of the three-stage consensus model of trauma treatment is absent [33]. Clinicians who mainly practice CBT are advised

to incorporate trauma-focused CBT (TF-CBT) to work with both trauma and addiction memory. While processing the narrative or explicit memories is important, having ways to process the physical aspects of trauma is necessary for adaptive resolution and to produce personal transformation [34; 35; 36; 37].

Ultimately, incorporating trauma resolution and memory reconsolidation therapies is essential to bring about healing of the root of the problem, not just the symptoms. Memory reconsolidation is based on the belief that the brain, through a process of memory retrieval and activation, can delete unwanted emotional learning [35]. Progressive counting, emotional coherence, brainspotting, deep brain reorienting, and EMDR therapy provide more direct ways of resolving traumatic/addiction memories [4; 35; 37; 38; 39].

SUCCESSFUL TREATMENT PLANNING

No instant cure or approach to psychotherapy exists for healing trauma, dissociative disorders, or any mental health conditions. In fact, if a professional claims that they have the curative answer for working with trauma and dissociation, proceed with caution. Particularly when working with dissociative systems, the answer to successful treatment rests in finding the approach or series of approaches that works best for that client to achieve their treatment goals. With the intricacies of parts and dissociative systems, it is very likely that a variety of tools and approaches will be necessary, as what works for one part may not resonate with another. This is where being an eclectic or integrated therapist, albeit with a solid understanding of trauma, will serve best.

This section does not endorse any one specific approach for working with or treating dissociation. Some people approach coming to treatment to address clinically significant dissociation as a process of healing maladaptive dissociation while fundamentally working to embrace the aspects of having a dissociative mind that serve them. As with treating any mental health condition using any approach (or approaches) to psychotherapy, it is important to get a sense of what the client's goals and intentions are for engaging in treatment. Never assume that integration is the client's goal or promote any biases that integration is what is required for a person to heal and to live an adaptive life, especially when a client presents with DID or any other dissociative condition that involves parts. Plausible goals that may appear in a treatment plan include:

- To manage problematic dissociative symptoms that get in the way of day-to-day life by more regularly using coping skills focused on grounding and mindfulness.
- To eliminate acting out behaviors (e.g., drinking, dangerous sex) that are more likely to happen when intense feeling is trying to be avoided.
- To promote a greater sense of communication in the internal system that will lead to a reduction of acting out behaviors and dissociating in situations that may be harmful (e.g., driving, at work).
- To decrease incidents of acting out inappropriately at work (e.g., shouting at superiors, ignoring colleagues) when feeling triggered. This will require working on two of the protector parts and the origin of their traumatic experience.
- To complete a creative project (writing a book) that is currently in progress, learning how to harness the potential of the mind and its dissociative qualities to help in reaching this goal.

The International Society for the Study of Trauma and Dissociation asserts that a fundamental tenet of the psychotherapy of patients with dissociative disorder is to bring about an increased degree of communication and coordination among the identities.

(https://www.isst-d.org/wp-content/uploads/2019/02/GUIDELINES_REVISED2011.pdf. Last accessed May 21, 2021.)

Level of Evidence: Consensus Statement/Expert Opinion

REFLECTION

Are there any other goals, knowing the clients you are treating right now, that may feel appropriate in developing a treatment plan with a dissociative client?

THE THREE-STAGE CONSENSUS MODEL OF TRAUMA TREATMENT

After treatment goals have been established in the early stages of rapport building and setting the foundation for treatment, paths for intervention can be more clearly established. Please bear in mind that treatment goals can change and evolve throughout the course of treatment, and this is especially true when working with complex trauma and dissociation. Regardless of the specific interventions a clinician is trained to use, the general recommendation in working with complex trauma and dissociation is that the three stages of treatment established by Janet in 1889 be used as a general guide for treatment planning [33]. The field of trauma study generally refers to this model as the three-stage consensus model of trauma treatment because a consensus does exist on their use as a general structure in treatment planning for anything connected to trauma or dissociation.

The stages and their tasks, as presented in modern language are [40]:

- **Stage 1**: Stabilization, symptom-oriented treatment, and preparation for liquidation of traumatic memories
- **Stage 2**: Identification, exploration, and modification of traumatic memories
- **Stage 3**: Relapse prevention, relief of residual symptomatology, personality reintegration, and rehabilitation

Put simply, clients work to become prepared to handle the symptoms that show up in day-today life while also preparing for a deeper level of work, if they have the intention to go there and heal trauma at its root. Treatment should also include preparing clients to adjust to the changes in their life that happen as a result of unhealed trauma being addressed and transformed. Trauma resolution is only part of treatment—it is not the entire process. Preparation and adjustment to life are also major components of treatment.

These three stages are accepted by the current academic literature reviews that guide formal treatment for dissociation in adults by the ISSTD [41]. Clinicians can access the academic papers cited by ISSTD as best practice treatment guidelines free of charge on the ISSTD website (***Resources***).

The three-stage consensus model is not without controversy or challenge. In a 2016 review, de Jongh, Resick, Zoellner, et al. contend that the three-stage consensus model has no clear evidence base in treatment of more complex manifestations of trauma [42]. They generally contend that survivors of trauma may not be able to achieve any semblance of stabilization until they first engage in some type of complex trauma work. This debate speaks to one of the greatest clinical puzzles that exists in working with complex trauma—when is a client ready to do the work of trauma resolution? Is taking them to the core of their traumatic memories for healing dangerous and thus focus ought to be on symptom resolution?

Unfortunately, the answer is that there is no easy answer; it must be evaluated on a case-by-case basis. When a dissociative system is involved, clinical judgment should take into account how the entire system works. In EMDR therapy, the term preparation is used instead of stabilization [4]. Perfect stabilization likely will not exist for a survivor of trauma unless they have engaged in some degree of trauma work. Stabilization, like dissociation, really can be seen as a continuum. So, the better question may be: Is the client stable enough or sufficiently prepared to take their healing to a deeper place? Preparation suggests that certain skills will need to be in place to manage life on a day-to-day basis, and widening a person's (or a system's) affective window of tolerance will be required for experiencing emotions and body sensations that are imperative in true trauma resolution work. Evaluating what a client has and what they may need to prepare themselves for meeting their treatment goals is a natural by-product of the Dissociative Profile exercise discussed previously.

TRAUMA-FOCUSED PREPARATION AND GROUNDING SKILLS

Many of the approaches to treatment that exist in the mental health field make wide use of guided imagery or visualization in preparation; these techniques are exclusively cognitive. In working with trauma, especially complex trauma and dissociation, it is vitally important that clinicians have a wide variety of skills that they can offer clients for use during and between sessions. These skills should work with all of the senses and many avenues of human experience [6; 43]. Grounding is the very practice of using all available senses and all available channels of human experience to remain in or return to the here and now.

Although clients will not respond favorably to all of these skills and strategies, it is important to offer choice. This choice becomes even more imperative when working with a dissociative system, because one skill may work well for one part when they are active and not another. Certain skills may work better to prevent maladaptive dissociative responses, while others are superior for helping a person (or certain parts) return to the present moment when they experience problematic dissociation.

Skills that may be used for preparation and widening affect windows of tolerance generally fall into the following categories:

- Basic awareness/mindfulness and grounding strategies
- Breathing strategies
- Muscle tensing/releasing exercises
- Visualization and multisensory soothing
- Containment (i.e., having a visual strategy or actual physical container to "hold" material until the timing is better to address; different than avoiding or pushing something away)
- Movement strategies
- Identification of other recovery capital (e.g., hobbies, support systems, mutual/self-help/church groups, advocacy activities, community support resources, pets)

Video teachings on skills in each of these categories are available online via the Trauma Made Simple website (***Resources***).

Some may be further ahead than others in use of such skills in clinical practice, so some clinicians may require a deeper investigation on how to use these skills personally and teach them to others. Regardless of the skills a clinician uses, it is important to trauma-inform the language and leave people plenty of options for modifying. Reading an exercise out of a book, showing a client a video, or even reading one of the skills word-for-word from this course will generally not be sufficient. If a client expresses that something is not working, it could be that they are overwhelmed; a general best practice is to modify the skill either in length or style.

In modern clinical work, many of the skills advocated for helping people to ground or widen their affective window of tolerance can be described as mindfulness practices. Mindfulness is fundamentally about remaining in or returning to the here and now. Consider that dissociation, by its nature, is the antithesis of mindfulness. Forner posits that mindfulness is fundamentally about connection (e.g., to the self, to the present moment, to others), whereas dissociation is ultimately about surviving disconnection [44]. If a person dissociates long enough or becomes bonded to this state (as proposed in the Addiction as Dissociation Model), they can become phobic of mindfulness. As with any other phobia, the answer is not to avoid teaching mindfulness strategies. Rather, clinicians should be cognizant of the idea that when mindfulness strategies are presented to people who dissociate, they are being asked to try something that can feel radical and new. Small steps are required to help people become more comfortable with being present.

Trauma- and Dissociation-Informing Practices

Strategies for trauma (and dissociation)-informing existing practices are diverse [1]. First, remember that eyes can stay open. Many clinicians and approaches to therapy or meditation automatically will tell people to "close the eyes," either because they have been trained to do this or because closed eyes help them to focus more effectively. Consider, however, that many people feel claustrophobic or closed in/trapped when their eyes are locked shut. This can promote anxiety. Moreover, closed eyes can be a dissociative response that can create a greater sense of drift or separation from the task at hand. Any exercise can work just as well with the eyes open, and for many clients with dissociation, keeping the eyes open can create a very necessary dual awareness between the room they are in (the present moment) and the memories or experiences that they are visiting in their work.

Second, time in the exercise is variable. Different approaches to clinical work and meditation will often write up skills with suggested lengths of time spent in each strategy, ranging from 3 to 5 minutes up to 25 minutes. Skills on the high end are generally too long for people who dissociate or who are just getting used to working with mindful skills and strategies. Clinicians are always empowered to alter the length of time that they guide a person through an exercise. Even 15 to 30 seconds at first can be an accomplishment for a client, and they can always build on this progress.

Next, let people know how long the exercise, particularly the silence, will last. Many people are triggered or further activated to dissociate when they are not sure how long something will last, especially periods of silence. While a goal may be to help people sit with silence for longer periods of time, be advised that a clinician's voice can be an anchor in many of these exercises. If there will be a period of silence in a meditation or skill, preface the exercise with, "We will now sit silently for the next 30 seconds."

It is also important to clarify any misconceptions or misinformation about what mindfulness, meditation, or yoga means. Many people think that these strategies are automatic relaxation devices, but in reality, their intent is to help people be with what is, even if that present moment experience is something distressing or upsetting. A solid working definition of mindfulness is the practice of returning to the present moment or noticing whatever is in the present moment without judgment.

Be open to variations in practice. Some people associate mindfulness as purely a sitting meditation practice. While this is a popular and potentially very beneficial way to work with mindfulness, any activity can be a vehicle for practicing mindfulness. Many find that walking, engaging in expressive arts practices, using grounding objects (e.g., rocks, crystals, soft blankets), or even activities of daily living (e.g., cleaning, cooking) are better avenues, especially at first. It is all about the intention and where the client is keeping their focus.

Clinicians are encouraged to have their own mindfulness practice. Clinicians who have their own practices realize the importance of modifications and can draw on this experience in teaching clients.

"Starter Pack" of Grounding Skills

The following grounding skills are written in language that clinicians might use with clients, with the intent to model the principles of trauma-informing exercises. The modifications and variations presented are not exhaustive. Consider what else might be coming up as variations that can be used in presenting these skills.

Basic Grounding and Sensory Scan

Take a look around the space that you are in right now. Start naming the different things you see. Be as specific as possible. For instance, you might say "I see the carpet below my feet. The carpet is blue with some bits of brown in the thread. I see the lamp on the desk. The base of the lamp is brown glass, and the shade is beige." Keep going for as long as you need, until you feel fully present in the space.

If you need, move on to the other senses. What are you hearing (or not hearing) in this moment, in this space? Observe and describe. What are you smelling? What are you tasting? Use your hands and either touch your clothes or make contact with the chair or the table. Observe and describe the touch sensation.

If you are working with an entire system, feel free to ask if all of the parts in a system feel sufficiently grounded and "here." If the answer is no from the presenting adult or the person/parts you work with primarily, invite those part(s) to engage in the same exercise. In using strategies like this, it is recommended you continue to speak to the present adult, using only a middleman (Fraser's term) or speaking directly to the parts in question if needed. In the case of DID in which there are multiple ANPs/presenting adults, the general advice is to work with whoever is present with you.

Mindful Breathing

In working with complex trauma and dissociation, it is important to recognize that breath work may be both a trigger and a resource. So, while deeper breathing strategies may be appropriate eventually, know that starting with basic breath tracking is sufficient.

Pay attention to your normal breathing for 30 seconds to 1 minute. If your mind starts to drift, that is okay, just bring the focus back to your breath.

A whole minute can be a challenge to start. Do not worry; start slowly and be gentle with yourself. If you can eventually work your breath practice up to three minutes, you will find that your breath will be there for you to help you calm yourself when you need it most. It takes practice. If you need the extra help, consider using this classic mantra as a guide, saying it to yourself as you breathe: "As I breathe in, I know I'm breathing in—as I breathe out, I know I'm breathing out." A simple "in-out" also works.

Clench and Release

Start with your hands, if they are available to you. Clench your fists together and notice your edge. Do not hurt yourself. Once you feel you are squeezing as tightly as possible, begin to notice your nails make contact with your skin. Notice the tension. As you do this, bring to mind a person, place, or thing that is causing you distress. Hold the clench as long as you can, at least 10 to 20 seconds.

When you feel like you no longer want to hold on, slowly release the grip of the fists. Feel each finger unlock and spread out. Notice the sensation of letting go and how you experience that in your body. Take a few breaths of your choice as you notice the sensations of release. Repeat as many times as necessary until you are at your desired level of relaxation about the stressor.

Optional: You can also choose to take a deep breath in with the fist clench and hold it as you clench your fists. Release the breath as you release the fists. Only do this if you feel comfortable enough holding the breath.

Variation: Some people are not able to make fists due to body differences or medical conditions (e.g., rheumatoid arthritis), or it may not be considered culturally appropriate. Any muscle group can be tensed and released for this exercise, including the shoulder, the stomach, the forearms, the thighs, or the feet.

Mountain Pose/Standing Meditation

In this practice, we will be working with one of the core poses of Hatha yoga—mountain pose—to explore the idea of standing tall and holding your ground, no matter what distress may exists around you. You do not need a yoga mat for this practice; just use the ground on which you stand.

Come to the front of your mat or to a place on the floor where you feel strong in your stance. Keep your feet together. If this puts too much pressure on your knees or hips, modify by stepping the feet apart slightly (no wider than hip width) while maintaining your balance. Press down into your feet and extend up through the crown of your head. Keep your eyes open and look straight ahead. Bring your hands into prayer position in front of your chest. To engage the energetic potential of the pose even more, become firm through your buttocks and inner thighs and drop the tailbone.

As you inhale, extend your arms straight overhead, interlacing your fingers if possible. If this is not available in your body, keep the arms straight overhead, palms facing each other, shoulder distance apart. Do your best to keep the arms alongside your ears and slightly back.

Use your breath to help you support the holding of the pose. This is not a contest to see how long you can hold the pose. Rather, when you first notice that you want to come out of it, challenge yourself to use your breath and other tools you now have to help you sustain the pose. Remember that the purpose of an edge is never to strive or push through pain. Always honor your body and back off when you need to.

Reset and try again if possible. The lesson we can learn in doing this type of work is of one's ability to practice adaptability by taking a break, resetting the breath, and then trying again.

Variations: You are free to use the wall or a chair for support. You can stand up and come up against the wall for that extra support. If using a chair, you can stand behind the chair and hold on with one hand, and do your best to use the other hand and arm for the overhead component of the pose. If you are not able to stand, feel free to modify the spirit of this pose as needed from a sitting position. Press down wherever you can in your lower body, and bring the upper body into position as you are able.

After engaging in this practice with a system, you can also inquire to see if all of the parts in the system responded well to this pose or if any struggled. If so, explore the source of that struggle and ask, perhaps, if there is a resource you can align for working with that part when they are standing up. For instance, some parts may not like the prayer hands, especially if they experienced spiritual or religious trauma. It may feel better to keep them at the side. Another part may like to envision a bright and healing light while they are standing tall. The options are limitless if you are willing to get feedback from clients as you go and explore options and variations.

THE THERAPEUTIC ALLIANCE

While the therapeutic alliance is an important feature of any therapy and in working with any population, issues around therapeutic alliance should be attended to in a special way when working with the spectrum of dissociation. A clinician's willingness to admit that dissociation is real and that a system is not manifestation of one's imagination is a great start in building rapport. As always, clinicians should be mindful not put their own agendas or projections on to a client, even in taking a more normalizing approach to dissociation.

Navigating the particulars of the therapeutic relationship can be sensitive. For instance, some parts in the system may not like a therapist or not be a fan of therapy in general. Clinicians are encouraged to roll with this resistance and take great care not to take any insults personally. Rather, consider what that particular part may find distressing and work to explore a solution. In doing clinical work, "hearing out" a part is generally more beneficial than trying to fight it.

Another potential problem area is a tendency for therapists to over-attach to younger or more vulnerable parts. There can be a desire for younger parts to turn the therapist into a parent figure, and this can cause some enmeshment and blurring of boundaries. While it is certainly possible to validate a client's or system's desire to see one as a parent, it is important to be clear that you are not their parent. This can feel cruel, but many of clients suffer because good boundaries were not modeled for them in early childhood. So, clinicians are in a position to validate their feelings and also challenge them into action, all while modeling and offering instruction about healthy boundaries. If this type of relationship is developing, ask the client/parts what qualities are being exhibited that they may have needed in a parent. These qualities can be used when evaluating what resources need to be built or worked on for younger parts in the system.

The following meditation and resourcing strategy may prove helpful for you and your clients in this process. As always, feel free to adjust and modify if needed.

Protector Figures

Protector figure resources may include people (real or imagined), spiritual entities, or even fictional characters to whom the client has a special attachment can be used. Another adjective may feel better than protector, including guardian, nurturer, advocate, or healer. Precautions should be taken, especially if using people who are still alive or may qualify as a mixed resource (i.e., they possess adaptive and maladaptive qualities). The exercise is written to go slowly and be adapted to the specific person and their system. Guided visualization may be used for this, as can expressive arts strategies or any strategy that works in the system of therapy in which you are trained.

Single Figure

Start by working with just a single figure. Try to stay away from real people at first. Think of the spiritual realm, fictional characters, or an entity that you create using the power of your imagination. You can choose if you want to use an adjective to describe this figure, like protector figure or sacred figure. Maybe a word like cheerleader or nurturer works better for the intention that you are setting today.

Breathe and notice. Does this figure you chose have a name? What do they look like? What are they wearing? If they have a face, what do you observe on their face? Notice what this figure is doing, or where they are in relation to you in this meditation. Maybe they are literally sitting beside you. Maybe you imagine them putting their hands on your shoulders in support. Maybe you are engaging in an activity with them. Notice whatever you notice.

Then notice the qualities that the figure you have selected brings to you. How do they make you feel about yourself? What are you noticing in your thoughts, your feelings, and your experiences when you are in their presence? Is there a certain bodily sensation that you may be noticing, the deeper you engage or notice this figure of yours? Keep breathing.

To go further, recall a challenging situation that may be coming up in your life the next few days or weeks. What would it look like, or what would it feel like, if you imagined bringing this protector figure with you?

Circle of Figures

After establishing this practice with a single figure, you can go further by imagining a circle of support—people who are spiritual entities or fictional entities from whom we have drawn great strength. Historical figures and inspirational persons who have passed away can also be part of your circle. You can also bring people who are in your life right now into your circle, as long as they feel like a primarily positive resource. Imagine who is surrounding you. Who constitutes your circle of support?

Maybe there are only two figures, or maybe there are several. Maybe each figure takes on a different quality. Perhaps you have a protector figure, a sacred figure, a cheerleading figure, and a nurturing figure.

Notice what you most need in your life today, or in your life in general. Who are some figures that you can ally with to present you with those qualities? Take a moment here to see what comes into focus.

Think of a situation coming up in your life in the next few days or the next week that may present a particular challenge. When that has come into your awareness, notice it. Notice what that would feel like, and what that would look like. Next, notice your response as you imagine your circle of support taking you into this challenge. Keep breathing.

OPTIONS FOR REPROCESSING AND HEALING TRAUMATIC ETIOLOGY OF DISSOCIATION

When a client (and their system) experiences an adequate sense of preparation to move forward, the system can begin heal using any number of therapeutic strategies. Before continuing, it can be helpful for clinicians to contemplate what they consider to be their primary therapeutic orientation or orientations. In many cases, professionals can use what they have already learned to help people reach their established goals by assisting them to process or modify how traumatic memories are stored in the brain.

For instance, EMDR therapy is appropriate for working with dissociation if the clinician offering the therapy is well-informed in how dissociation can play out in an individual or their system and plans their targets and strategies with respect to how the system may work. Regardless of the approach used, if a block or a resistance shows up in the work, this is likely another part trying to have their voice heard, either to meet a need or to protect the system. Clinicians should be prepared with protocols in place to address these blocks. Seeking consultation from someone who practices the specific therapeutic approach and is well-skilled in working with dissociation and dissociative parts may be warranted to help build skills and confidence.

Expressive arts therapy, which refers to using any and all available creative forms (e.g. dance/movement, writing, art, drama, music) in combination, or any of the creative arts therapies as singular strategies can be a solid adjunct to any strategy available for processing or transforming trauma's impact in the brain. In many cases, parts in a system are young in terms of chronological age or exist in a state that cannot easily be accessed by words or language. Drawing or dancing may be a way to access the material that needs to be processed. Expressive arts strategies can be used in concert other approaches to trauma-focused therapy if the clinician has a sense of adventure and a willingness to personally try these strategies [45].

Table 3 provides a list of therapeutic approaches and online resources to access additional information. All of these approaches have some form of evidence base for working with the processing of traumatic memories and a protocol for how to best handle dissociation. Some of the modalities require more training than others, and clinicians who feel unprepared to work with processing traumatic memories in a holistic way may consider pursuing additional training in one of these modalities.

In the treatment recommendations provided by the ISSTD, no one specific treatment modality is endorsed for doing stage 2 work. What is important is that clinician and client has a solid therapeutic alliance established with good boundaries, and that they understand how to work with abreaction (when material shifts from the sub-conscious into consciousness, with some type of affective release typically accompanying it). Working integration will help a client and their system be able to put the past in its proper place and allow all facets of experience to be attended to. With a system involved, this may not be an easy task; it should be handled with care and attention to the system. The client-driven An Infinite Mind organization also does not endorse any one modality in the treatment of DID. Instead, they emphasize the importance of finding a therapist who believes in dissociation and who is willing to work with it, while also giving a client/survivor of trauma options for care.

HELPING PEOPLE TO LIVE A MORE ADAPTIVE LIFE

An estimated 10% of the adult population is estimated to have a dissociative disorder; the majority are living typical lives and making valuable contributions to society [46]. Prevalence rates are higher in certain populations (e.g., psychiatric inpatients). For the sake of these patients, biases or preconceived notions about the impossibility of healing and optimal functioning in people who clinically dissociate should be put aside. These clients deserve the best available care to address their traumatic memories and improve their quality of life. The third stage of the three-stage consensus model of trauma treatment is generally called reintegration, and its primary objective is to assist people to make adjustments based on healing gains in therapy, ultimately living more adaptive, fulfilling lives.

How a clinician approaches stage three work with individuals who have DID or otherwise dissociate is not unlike how one might approach this stage with any other client impacted by trauma. One should be mindful that this work should be geared toward helping the system function as optimally and as peacefully as possible. Much of the work that took place in the preparation stages has a natural carry over to the reintegration phase. A helpful strategy can be to have the client and their system do the Dissociative Profile exercise at several intervals to see if any adjustments may need made. Completing one after an initial round of some work in stage two and also re-evaluating as termination nears is recommended.

Another question that arises is whether or not people with DID especially will require continued treatment or care for the rest of their lives or if termination is possible. In many ways, DID and other dissociative disorders are no different than any other major mental health disorders when contemplating termination. Some people will need long-term care as they adjust to living a more adaptive life aligned with their goals and intentions; others will reach a place where regular therapeutic care is no longer necessary. Like many issues in mental health, a case-by-case approach should be taken. Pharmacotherapy is outside of the scope of this course, but clients with dissociative symptoms or DID might be prescribed medications under the care of a psychiatrist or addiction medicine specialist. If this is the case, as a therapist, it is important to have regular contact with these providers to assure continuity in care and interprofessional collaboration.

RESOURCES FOR THERAPEUTIC APPROACHES TO PROCESSING TRAUMA AND RELATED DISSOCIATION[a]	
Approach	**Recommended Resource**
Accelerated experiential dynamic psychotherapy (AEDP)	https://aedpinstitute.org
Acceptance and commitment therapy (ACT)	https://contextualscience.org/act
Art therapy	https://arttherapy.org
Body-centered psychotherapy and somatic psychology	https://usabp.org
Brainspotting	https://brainspotting.com
Cognitive processing therapy	https://cptforptsd.com
Coherence therapy	http://www.coherencetherapy.org
Dance/movement therapy	https://www.adta.org
Developmental needs meeting strategy	https://www.dnmsinstitute.com
Dialectical behavior therapy (DBT)	https://linehaninstitute.org
Drama therapy	https://www.nadta.org
Emotional freedom techniques (EFT)	https://www.emofree.com
Energy psychology	https://www.energypsych.org
Equine-assisted therapy	https://www.eagala.org
Exposure therapy	https://www.apa.org/ptsd-guideline/patients-and-families/exposure-therapy
Expressive arts therapy	https://www.ieata.org
Eye movement desensitization and reprocessing (EMDR)	https://www.emdria.org
Focusing	https://focusing.org
Gestalt therapy	https://aagt.org
Hakomi mindful somatic psychotherapy	https://hakomiinstitute.com
Hypnosis and hypnotherapy	https://www.asch.net
Internal family systems therapy (IFS)	https://ifs-institute.com
Music therapy	https://www.musictherapy.org
Narrative therapy	https://narrativetherapycentre.com
Neuro emotional technique (NET)	https://www.netmindbody.com
Neurofeedback	https://isnr.org
Neuro-linguistic programming (NLP)	https://www.neurolinguisticprogramming.com
Play therapy	https://www.a4pt.org
Progressive counting (PC)	https://www.childtrauma.com/treatment/pc
Psychoanalysis	https://apsa.org
Psychomotor therapeutic system	https://pbsp.com
The Sanctuary Model	https://www.nctsn.org/interventions/sanctuary-model
Sensorimotor psychotherapy	https://sensorimotorpsychotherapy.org
Somatic experiencing	https://www.somaticexperiencing.com
Trauma-focused cognitive-behavioral therapy (TF-CBT)	https://tfcbt.org
Trauma incident reduction (TIR)	https://www.tira.org
Trauma Resiliency and Community Resiliency Models	https://www.traumaresourceinstitute.com
Yoga therapy	https://www.iayt.org
[a]This list is not intended to be exhaustive, and other modalities and resources may be appropriate.	
Source: Compiled by Author	*Table 3*

EVIDENCE-BASED PRACTICE RECOMMENDATION

According to the International Society for the Study of Trauma and Dissociation, psychotropic medication is not a primary treatment for dissociative processes, and specific recommendations for pharmacotherapy for most dissociative symptoms await systematic research.

(https://www.isst-d.org/wp-content/uploads/2019/02/GUIDELINES_REVISED2011.pdf. Last accessed May 21, 2021.)

Level of Evidence: Consensus Statement/Expert Opinion

REFLECTION

Now that you are nearing the end of this course, it may be a good idea for you to go back to your original Dissociative Profile exercise and re-evaluate. Knowing what you know now, after reading and working through this course, are there any adjustments that you would make? Even if this course has inspired you to take on healthier, proactive skills in the area of grounding, do there still seem to be some places where you feel stuck? Remember that there is no shame, especially as a therapist or helping professional, to seek out your own care, especially where issues around trauma or dissociation are concerned. Not only might this care help you to live a more adaptive life, it will likely have a positive impact on your efficacy as a therapist, especially in navigating complex situations.

Introduction to Parts Journaling

Parts journaling is an exercise based on Gestalt principles and other time-honored strategies in the field of psychotherapy, with an expressive arts twist. Like any exercise in this course, clinicians are encouraged to personally complete it first, and then consider sharing it with clients.

For this exercise, refer to any artwork or mapping that you created for your personal parts exploration. The purpose of that exercise was to provide a sense of how your system works. In this exercise, the objective is to further explore how the system interacts. Where might some areas of communication need to take place? As you examine the artwork you created, is there one part, segment, or facet that is most jumping out or resonating for you right now? If so, notice it and consider this question: If that part had a message for me right now, what would it be? It is permissible to use the presenting adult/core ego state/ANP, if that is what you are noticing the most. Take about three to five minutes to free write.

After this initial writing, look at the art work once more and notice if there is a second part, segment, or facet that is also calling your attention. Follow the same steps—notice and ask if that part had a message for me right now, what would it be? Again, take about three to five minutes to free write.

Now you are encouraged to write a dialogue between the two parts, segments, or facets. Take at least three to five minutes to let this unfold, although you can take longer if you wish. Consider the following example:

Adult Jamie (AJ): I'm working on my presentation for the EMDR conference.

9: Oh, boy. You still go to that?

AJ: Of course. It's gotten better for me. For all of us, I think.

9: What are you teaching on this year?

AJ: Dissociation—about how our mind works.

9: Oh, brother. Do you think we can handle it without chewing their heads off?

AJ: I'm hoping we can. Can I get your input first?

9: You really sure you want to hear from me on this one?

AJ: Yes, I do.

You can name your parts, segments, or facets whatever you wish. (What appears in the example reflects how I specifically engage in parts journaling.) As with every exercise outlined in this course, it is important not to censor yourself—let whatever unfolds happen, being open to any surprises or insights. If at any point you feel too overwhelmed, you have permission to stop and go back to one of your grounding or other coping skills. You can choose to resume the exercise later or leave it. What did you notice about yourself, the process, and your own internal world as a result of this exercise?

Parts journaling can be particularly useful for clients working with material in the system between sessions. There are also many implications for this sense of dialogue and communication can be used to help one's systems and internal world live more adaptively. When using this exercise with a client, it is strongly advised that it is personally completed first and that the client do the exercise in the presence of the clinician the first time it is attempted, so they have assistance working through any distress or overwhelm they might experience. As always, it is vital to use good clinical judgment about assigning this as therapeutic homework between sessions. Clients may do very well with this on their own after they understand its intention—to give voice to parts of the system that may need to speak and to engender a higher degree of communication. Although one should begin writing between only two parts to start, the voices of other parts can be brought in, especially if they have a mediating influence or hold an important part of the solution.

Other expressive arts possibilities (e.g., art, movement) can be integrated into parts journaling work. For some people, after they engage in the parts journaling, it can feel nourishing and transformative to make art (even if it is scribbles or doodles) on top of the words. With any kind of journaling, it is important to let clients know that they do not need to keep the writing or leave their words exposed; ripping pages or burning them safely are always options. Making art on top of the words is another option that speaks to this idea of making something beautiful out of something potential painful. If working with movement, consider this variation: If Part A's message could be expressed in a movement or a gesture, what would that be? If Part B's message could be expressive in a movement or a gesture, what would that be? Then spend a few minutes going back-and-forth between the movements/gestures and see what naturally unfolds.

CONCLUSION

Dissociation is a natural and normal part of the human experience. An inherent mechanism of the primitive brain, dissociation allows for needs to be met and for protection when one feels especially vulnerable. Understanding the intricacies of dissociation is imperative if a therapist or other helping professional wishes to be as trauma-focused as possible. Trauma and dissociation go hand-in-hand, and this interplay can manifest in ways that are clinically puzzling. However, a main theme of this course is that understanding one's own relationship with dissociation and internal world of parts is an important educational step to working with dissociation effectively. There is a time-honored piece of wisdom—we cannot take our clients farther than we have personally gone ourselves. A clinician's willingness to do this work, even if it starts with the three experiential exercises that appeared in this course, will go a long way. Moreover, clinical consultation, or consultation with a trauma survivor who has DID or another dissociative disorder, can be valuable. As with any pursuit in the helping professions, it is important not to let the science over-ride the art.

RESOURCES

An Infinite Mind
https://www.aninfinitemind.com

DID Research
https://www.did-research.org

Discovering DID
https://blog.discoveringdid.com

Dissociative Disorders Interview Schedule
https://www.rossinst.com/ddis

Dissociative Experiences Scale-II
http://traumadissociation.com/des

How to Use Fraser's Dissociative Table Technique to Access and Work with Emotional Parts of the Personality by Kathleen Martin
https://connect.springerpub.com/content/sgremdr/6/4/179

Harvey Weinstein's "False Memory" Defense and Its Shocking Origin Story by Anna Holtzman
https://medium.com/fourth-wave/harvey-weinsteins-false-memory-defense-and-its-shocking-origin-story-2b0e4b98d526

Institute for Creative Mindfulness Dissociation and Addiction Resources
https://www.instituteforcreativemindfulness.com/dissociation--addiction-resources

International Society for the Study of Trauma and Dissociation
https://www.isst-d.org

Multidimensional Interview of Dissociation (MID)
http://www.mid-assessment.com

Deconstructing the Stigma of Dissociative Identity Disorder by Olga Trujillo, JD
https://olgatrujillo.com

Ritual Abuse, Ritual Crime, and Healing
http://ra-info.org

Dissociative Disorders Interview Schedule (DSM-5 Version)
https://www.rossinst.com/Downloads/DDIS-DSM-5.pdf

Trauma and Dissociative Disorders Explained
http://traumadissociation.com

Trauma Made Simple
https://www.traumamadesimple.com

Guidelines for Treating Dissociative Identity Disorder in Adults
https://www.isst-d.org/resources/adult-treatment-guidelines

Guidelines for the Evaluation and Treatment of Dissociative Symptoms in Children and Adolescents
https://www.isst-d.org/resources/child-adolescent-treatment-guidelines

Customer Information, Answer Sheet, and Evaluation located on pages 131–136.

TEST QUESTIONS

#76080 DEMYSTIFYING DISSOCIATION: PRINCIPLES, BEST PRACTICES, AND CLINICAL APPROACHES

This is an open book test. Please record your responses on the Answer Sheet.
A passing grade of at least 80% must be achieved in order to receive credit for this course.

This 10 hour activity must be completed by May 31, 2024.

1. The word dissociation is derived from a Latin root word meaning
- A) *wound.*
- B) *to integrate.*
- C) *to fight against.*
- D) *to sever or to separate.*

2. In clinical practice, the preferred term for separated aspects of self, seen as more normalizing, is
- A) *parts.*
- B) *alters.*
- C) *introjects.*
- D) *personalities.*

3. According to the triune brain model, the brainstem and cerebellum are parts of the
- A) *neocortex.*
- B) *limbic brain.*
- C) *mammalian brain.*
- D) *R-complex or reptilian brain.*

4. If a stimulus triggers a person into reaction at the limbic level, one of the quickest ways to alleviate that pain/negative reaction is to
- A) *go catatonic.*
- B) *engage in adaptive coping work.*
- C) *trigger pain at a different brain level.*
- D) *feed the pleasure potential in the limbic system.*

5. Electrical neuroimaging studies show a correlation between what brain area and dissociative symptoms?
- A) *Brainstem*
- B) *Sylvian fissure*
- C) *Occipital lobe*
- D) *Temporoparietal junction*

6. People with dissociation are more likely to act out and cause harm to self or to others than clients with other diagnoses.
- A) *True*
- B) *False*

7. Which of the following statements regarding integration for clients with dissociative disorder is TRUE?
- A) *Integration is only used to refer to the complete absence of parts.*
- B) *Integration in the simplistic sense is never achieved—nor does it need to be.*
- C) *The goal for all individuals with DID or other dissociative disorders should be integration and complete resolution of inter-part communication.*
- D) *For successful treatment of DID or another dissociative disorder to occur, there must be an integration of the various parts into one presenting person.*

8. All of the following are components of complex trauma experiences, EXCEPT:
- A) *Are repetitive or prolonged*
- B) *Generally involve a single majorly traumatic incident or event*
- C) *Occur at developmentally vulnerable times in the victim's life, such as early childhood*
- D) *Involve direct harm and/or neglect or abandonment by caregivers or ostensibly responsible adults*

9. It has been established that unhealed trauma is a major etiologic factor in the development of clinically significant
- A) *psychosis.*
- B) *personality disorders.*
- C) *dissociative disorders.*
- D) *post-traumatic stress disorder.*

Test questions continue on next page ➔

10. The memory wars refer to
- A) *the hypothesis that dissociative disorders are the result of deficits in memory processing.*
- B) *the conflict that occurs cognitively when two different perspectives of an event are presented.*
- C) *decades of debate about the trustworthiness of memory, particularly as it relates to accusations of abuse by survivors of trauma.*
- D) *conflict in the psychiatric and psychological communities regarding the role of memory in the development of trauma- and stressor-related disorders.*

11. Which of the following statements regarding dissociative identity disorder (DID) is FALSE?
- A) *It develops as a childhood coping mechanism.*
- B) *It is a spectrum disorder with varying degrees of severity.*
- C) *Parts of a person's personalities are always unaware of the other parts.*
- D) *It is important to note voices heard in DID are on the inside versus the outside.*

12. What is the most common of all dissociative disorders?
- A) *Dissociative amnesia*
- B) *Depersonalization disorder*
- C) *Unspecified dissociation disorder*
- D) *Dissociative identity disorder (DID)*

13. Depersonalization
- A) *symptoms always persist or recur for many years.*
- B) *only occurs after a person long-term complex trauma.*
- C) *is associated with considerable amnesia for the period between 6 and 11 years of age.*
- D) *has been described as being numb or in a dream or feeling as if you are watching yourself from outside your body.*

14. In the DSM-5 criteria for PTSD diagnosis, there is a qualifier option of PTSD with predominant dissociative symptoms. Dissociation can play out in
- A) *Criterion B (intrusion symptoms).*
- B) *Criterion D (negative cognitions/mood).*
- C) *Criterion E (alterations in arousal and reactivity).*
- D) *all five symptom areas.*

15. The Dissociative Profile is
- A) *a clinical tool used to diagnose dissociative disorders.*
- B) *used for personal development but is not useful for treatment planning.*
- C) *a process used to evaluate and become aware of one's own tendencies to dissociate.*
- D) *an exercise used to assign a descriptive metaphor to one's experiences with dissociation.*

16. The Dissociative Experiences Scale (DES)
- A) *consists of five items.*
- B) *is a purely diagnostic evaluation.*
- C) *is a useful conversation starter and vehicle for investigations.*
- D) *should only be used for persons with a specific dissociative diagnosis.*

17. What score on the DES-II is generally considered to be in the range of a clinically significant dissociative disorder?
- A) *10%*
- B) *25%*
- C) *40%*
- D) *80%*

18. All of the following are psychometrics in use clinically to assess dissociation, EXCEPT:
- A) *Dissociative Disorders Interview Schedule (DDIS)*
- B) *Multidimensional Interview of Dissociation (MID)*
- C) *Structured Clinical Interview for Dissociative Disorders (SCID-D)*
- D) *Comprehensive Assessment for At-Risk Mental States (CAARMS)*

19. Which of the following is an approach used in Fraser's Dissociative Table Technique?
- A) *Relaxation imagery*
- B) *Spotlight technique*
- C) *Middleman technique*
- D) *All of the above*

20. The transformation stage technique can be used to transform a person's relationship to the memory and how they see themselves in the memory in terms of time, space, and age.
- A) *True*
- B) *False*

21. As used in the Theory of Structural Dissociation, apparently normal personality (ANP) is
- *A) always singular.*
- *B) essential to final integration.*
- *C) similar to Fraser's idea of the center ego state.*
- *D) the part that remains to protect or to meet a need.*

22. In the Theory of Structural Dissociation, tertiary structural dissociation
- *A) classically presents as DID.*
- *B) involves a maximum of three emotional parts.*
- *C) is more likely to be used in relation to PTSD and other trauma-related disorders.*
- *D) is mainly related to personality disorders, dissociative disorders other than DID, and complex PTSD or developmental trauma.*

23. In working with clients with dissociation and identifying your own dissociative tendencies, clinicians can lean into the metaphorical possibilities.
- *A) True*
- *B) False*

24. Which of the following is a metaphorical possibility when exploring a client's emotional parts?
- *A) A car or van*
- *B) Keys on a ring*
- *C) A bouquet of flowers*
- *D) All of the above*

25. All clients with dissociative disorders will develop names for their parts.
- *A) True*
- *B) False*

26. Which of the following statements regarding dissociation and addiction is TRUE?
- *A) Specific dissociative symptoms usually resolve in sobriety.*
- *B) There is a weak relationship between dissociation and addiction.*
- *C) Many clients become aware of dissociative symptoms experienced in childhood because drinking and using drugs feels familiar.*
- *D) When a person has a difficult time staying sober, unhealed trauma is usually the culprit, and dissociation is a possible manifestation.*

27. All of the following are commonly overlooked dissociative behaviors that manifest clinically during recovery, EXCEPT:
- *A) Relapse*
- *B) Blocking or resistant client behaviors*
- *C) Clients struggling to pay attention in group, at 12-step meetings, or during lectures*
- *D) Clients changing tone when something distressing comes up in sessions or in group*

28. The Addiction as Dissociation Model contends that dissociation develops in relation to trauma and addiction, because trauma (cause) produces dissociation (effect).
- *A) True*
- *B) False*

29. In one study, participants with PTSD dissociation subtype (PTSD-D) demonstrated
- *A) fewer lifetime drug overdoses.*
- *B) less risk of current use of opioids/analgesics.*
- *C) a more severe course of substance-related problems.*
- *D) a decreased need for treatment due to substance use problems.*

30. Which of the following is NOT a tenet of the Addiction as Dissociation Model?
- *A) Addiction is separate from the dissociative spectrum.*
- *B) Dissociative states can switch subtly and produce re-enactments/feedback loops.*
- *C) Integration of experience and neurobiological disharmony is imperative for individuals to live a more adaptive life.*
- *D) Naltrexone helps prevent dissociative states from overpowering conscious awareness and helps manage symptoms of alcohol use disorder.*

31. Time-honored interventions for treating addiction should be fortified with approaches that
- *A) seek to exclude problematic family members.*
- *B) cultivate daily practices that lead to lifestyle change.*
- *C) develop the power of nonjudgmental support communities.*
- *D) Both B and C*

Test questions continue on next page ➔

32. Which of the following interventions provides a more direct way of resolving traumatic/addiction memories?
- A) *Seeking safety*
- B) *Progressive counting*
- C) *Cognitive-behavioral therapy*
- D) *Dialectical behavioral therapy*

33. With the intricacies of parts and dissociative systems, it is very likely that a variety of tools and approaches will be necessary, as what works for one part may not resonate with another.
- A) *True*
- B) *False*

34. Never assume that integration is the client's goal or promote any biases that integration is what is required for a person to heal and to live an adaptive life, especially when a client presents with DID or any other dissociative condition that involves parts.
- A) *True*
- B) *False*

35. In the three-stage consensus model of trauma treatment, stage 1 consists of
- A) *identifying and agreeing on goals of treatment.*
- B) *identification, exploration, and modification of traumatic memories.*
- C) *stabilization, symptom-oriented treatment, and preparation for liquidation of traumatic memories.*
- D) *relapse prevention, relief of residual symptomatology, personality reintegration, and rehabilitation.*

36. Which of the following statements regarding trauma treatment is TRUE?
- A) *Trauma resolution encompasses the entire treatment process.*
- B) *Preparation and adjustment to life are major components of treatment.*
- C) *It is important to focus on a single treatment modality in order to ensure success.*
- D) *Preparing clients to adjust to the changes in their life that happen as a result of unhealed trauma being addressed takes place after treatment is complete.*

37. Grounding is defined as
- A) *the active pursuit of relapse prevention.*
- B) *a phase of treatment focusing on affect regulation and coping skills.*
- C) *a maladaptive form of dissociation that limits a client's ability to work through traumatic memories.*
- D) *the practice of using all senses and all available channels of human experience to remain in or return to the here and now.*

38. In terms of a skill used for preparation and widening of the affect windows, containment is
- A) *avoiding or pushing away traumatic material so it does not affect the client.*
- B) *a type of breathing exercise characterized by extended holding of the breath and a slow release.*
- C) *having a visual strategy or actual physical container to "hold" material until the timing is better to address.*
- D) *the community surrounding a client that may be accessed as a support system and often referred to as recovery capital.*

39. If a client expresses that a preparation exercise/skill is not working, it could be that they are overwhelmed; a general best practice is to modify the skill either in length or style.
- A) *True*
- B) *False*

40. Which of the following statements regarding mindfulness practices for clients who dissociate is FALSE?
- A) *Dissociation, by its nature, is the antithesis of mindfulness.*
- B) *It is important to avoid teaching mindfulness strategies to clients who dissociate.*
- C) *Small steps are required to help people who dissociate to become more comfortable with being present.*
- D) *If a person dissociates long enough or becomes bonded to this state, they can become phobic of mindfulness.*

41. Which of the following is a strategy for trauma- and dissociation-informing existing practices?
- A) *Eyes remain open*
- B) *Shorten time spent in an exercise*
- C) *Alert the client to the time that will be spent in an exercise*
- D) *All of the above*

42. Walking, engaging in expressive arts practices, using grounding objects, and activities of daily living can be avenues to practice mindfulness.
- A) *True*
- B) *False*

43. All of the following are grounding exercises, EXCEPT:
- A) *Sensory scan*
- B) *Mindful breathing*
- C) *Clench and release*
- D) *Dialectical behavioral therapy*

44. Clinicians should be mindful not put their own agendas or projections on to a client, even in taking a more normalizing approach to dissociation.
- A) *True*
- B) *False*

45. Which of the following is a potential issue in the therapeutic alliance when working with clients on the dissociation spectrum?
- A) *One part's rejection or dislike for the therapist*
- B) *Needing to act as a child to the client or to a part*
- C) *Under-attachment to younger or more vulnerable parts*
- D) *Less time is necessary to establish rapport, which can be jarring*

46. When conducting a protector figure exercise,
- A) *the protector adjective should always be used, as it best describes the intended use.*
- B) *expressive arts strategies may be incorporated, but guided visualization should be avoided.*
- C) *Precautions should be taken, especially if using people who may qualify as a mixed resource.*
- D) *protector resources may include fictional people or spiritual entities, but real people should be avoided.*

47. Clinicians should only use specifically designed interventions for reprocessing and healing of traumatic memories, even if they are outside what they consider to be their primary therapeutic orientation or orientations.
- A) *True*
- B) *False*

48. What role does expressive arts therapy play in stage 2 reprocessing work to address trauma and dissociation?
- A) *Only visual arts are an appropriate avenue for treatment.*
- B) *These approaches may be effectively used as monotherapy to address dissociation.*
- C) *Expressive arts strategies can be used in concert other approaches to trauma-focused therapy.*
- D) *Expressive arts should not be used with parts in a system that are young, as they may not understand the goals.*

49. In the treatment recommendations provided by the International Society for the Study of Trauma and Dissociation, no one specific treatment modality is endorsed for doing stage 2 work.
- A) *True*
- B) *False*

50. All of the following are essential aspects of the care of clients with dissociation, EXCEPT:
- A) *Involvement of family members*
- B) *A clinician prepared to work with abreaction*
- C) *A solid therapeutic alliance established with good boundaries*
- D) *The client and their system putting the past in its proper place and allowing all facets of the experience to be attended to*

51. What proportion of the population is estimated to have a dissociative disorder?
- A) *0.1%*
- B) *1.5%*
- C) *10%*
- D) *25%*

52. The primary objective of the third stage of the three-stage consensus model of trauma treatment is to
- A) *reprocess and ultimately heal traumatic memories.*
- B) *fully integrate all emotional parts into one presenting adult.*
- C) *provide clients with resources for continued lifelong treatment.*
- D) *assist people to make adjustments based on healing gains in therapy, ultimately living more adaptive, fulfilling lives.*

Test questions continue on next page ➔

53. When considering continued care of clients with dissociation or DID,

A) a case-by-case approach should be taken.
B) all clients should work toward an ultimate goal of treatment termination.
C) clients will require continued treatment or care for the rest of their lives.
D) treatment should be discontinued if pharmacotherapy has been successful.

54. Parts journaling is an exercise based on Freudian principles.

A) True
B) False

55. Which of the following statements regarding parts journaling is FALSE?

A) The client should journal in the presence of their clinician the first time it is attempted.
B) Parts journaling can be particularly useful for clients working with material in the system between sessions.
C) The initial journaling session should include all of a client's parts, as excluding a part can lead to resentments.
D) When using this exercise with a client, it is strongly advised that it is personally completed by the clinician first.

Be sure to transfer your answers to the Answer Sheet located on page 132.
DO NOT send these test pages to NetCE. Retain them for your records.
PLEASE NOTE: Your postmark or facsimile date will be used as your test completion date.

Alcohol and Alcohol Use Disorders

Audience
This course is designed for mental and behavioral allied health professionals involved in the treatment or care of patients who consume alcohol.

Course Objective
The purpose of this course is to address the ongoing alcohol competency educational needs of practicing mental and behavioral health providers. The material will include core competencies as well as knowledge, assessment, and treatment-based competencies.

Learning Objectives
Upon completion of this course, you should be able to:

1. Review facts about the history, costs, and prevalence of alcohol use and abuse.
2. Define moderate drinking and take a history of alcohol use as defined by the standard drink equivalency.
3. Identify benefits reported in the literature for moderate alcohol consumption.
4. Distinguish between genetic and environmental risk and protective factors for developing alcohol problems.
5. Describe clinical characteristics of alcohol use disorder, intoxication, and withdrawal.
6. List complications associated with alcohol use disorders.
7. Recognize mental problems associated with alcohol use disorders.
8. Discuss screening instruments for detecting alcohol use disorders, including considerations for non-English-proficient patients.
9. Explain brief intervention efficacy and techniques.
10. Describe and evaluate treatment modalities.

Faculty
Mark S. Gold, MD, DFASAM, DLFAPA, is a teacher of the year, translational researcher, author, mentor, and inventor best known for his work on the brain systems underlying the effects of opiate drugs, cocaine, and food. Dr. Gold was a Professor, Eminent Scholar, Distinguished Professor, Distinguished Alumni Professor, Chairman, and Emeritus Eminent Scholar during his 25 years at the University of Florida. He was a Founding Director of the McKnight Brain Institute and a pioneering neuroscience-addiction researcher funded by the NIH-NIDA-Pharma, whose work helped to de-stigmatize addictions and mainstream addiction education and treatment. He also developed and taught courses and training programs at the University of Florida for undergraduates and medical students. (A complete biography appears at the end of this course.)

William S. Jacobs, MD, is a national clinical expert, triple board certified in Anesthesiology, Pain Medicine, and Addiction Medicine. A Phi Beta Kappa, magna cum laude University of Georgia undergraduate and graduate of the Medical College of Georgia, Dr. Jacobs did his anesthesiology residency at the University of Alabama-Birmingham, where he won the Dripps Award for the Best Anesthesiology Resident. He had a 13-year career as a private practitioner in anesthesiology and pain management before matriculating to the University of Florida for his addiction medicine fellowship. (A complete biography appears at the end of this course.)

Faculty Disclosure
Contributing faculty, Mark S. Gold, MD, DFASAM, DLFAPA, has disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

Contributing faculty, William S. Jacobs, MD, has disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

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Alice Yick Flanagan, PhD, MSW
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Sarah Campbell

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NetCE is approved as a provider of continuing education by the California Association for Alcohol/Drug Educators. Provider Number CP40 889 H 0623.

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Designations of Credit
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NetCE designates this continuing education activity for 10 CE credits.

NetCE designates this continuing education activity for 4 NBCC clock hours.

NetCE designates this continuing education activity for 10 continuing education hours for addiction professionals.

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EVIDENCE-BASED PRACTICE RECOMMENDATION

Sections marked with this symbol include evidence-based practice recommendations. The level of evidence and/or strength of recommendation, as provided by the evidence-based source, are also included so you may determine the validity or relevance of the information. These sections may be used in conjunction with the study questions and course material for better application to your daily practice.

INTRODUCTION

No substance, legal or illegal, has a more paradoxical mythology than alcohol. It is undeniably one of the most widely and safely used intoxicants in the world; however, it is also potent and dangerous, both from a psychologic and a physiologic viewpoint. Alcohol is currently responsible for more deaths and personal destruction than any other known substance of abuse, with the exception of tobacco. All of this is known with scientific certainty. Alcohol is legal, easily obtained, and supported by a multi-billion-dollar worldwide industry. Alcohol consumption at reasonable doses reduces social inhibitions and produces pleasure and a sense of well-being. It also can have some rather impressive positive medical effects, such as a reduced risk of cardiovascular disease [1; 2].

SUBSTANCE ABUSE AND ADDICTION

Alcohol is defined as a substance of abuse by self-administration in lab animals and man. All drugs of abuse affect the brain's reward pathways. The effects of alcohol appear to be related to complex multiple interactions with the dopamine, gamma-aminobutyric acid (GABA), serotonin, opioid, and *N*-methyl-D aspartate (NMDA) neurotransmitter systems [3; 4]. Studies suggest that the reinforcing effect of alcohol is partially mediated through nicotinic receptors in the ventral tegmental area, which when combined with nicotine may be a factor in the high incidence of smoking among those with alcohol use disorder [5; 6; 7]. Alcohol, food, and other drugs of abuse have similar effects on dopamine receptors. The development of addiction, including to alcohol, is affected by genetic predisposition and influenced by alterations in the rewarding chemicals released per dose.

Substances of abuse are often put into categories based on their effects. Alcohol has effects similar to other depressants. Characteristics include:

- Decreased cognitive function while intoxicated
- Decreased inhibition and increased impulsivity
- Risk of overdose
- Development of depressive symptoms in heavy users
- Withdrawal symptoms similar to other depressants
- Symptoms of anxiety during withdrawal
- Substance-induced psychoses in some heavy users

The established criteria for the diagnosis of alcohol abuse and dependence will be discussed in detail later in this course.

HISTORY

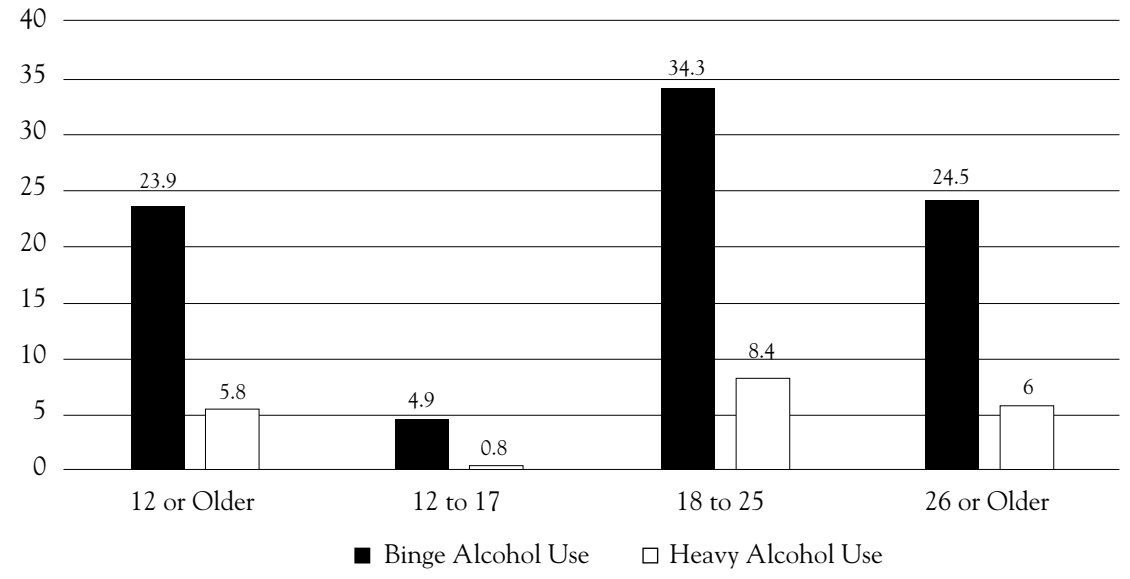
From the earliest days of colonial settlement to the present, Americans have been drinking alcohol. The early American experience with alcohol provides a glimpse of patterns of use, as well as controversies involving alcohol. The argument could be made that alcohol, in one form or another, was used more in early revolutionary America than it is today. Drinking had almost religious support, with alcohol portrayed as a gift from God; a gift that could be abused by excessive drinking or drunkenness.

The story of alcohol in America begins with the Mayflower. The Mayflower dropped anchor in Plymouth, Massachusetts, in February 1621. The passengers were out of beer, and the crew was in no mood to share. Running out of beer or spirits was no laughing matter. So seriously did the crew take this lack of spirits that they quickly dropped the passengers off the Mayflower into very harsh conditions at Plymouth. This preference for beer was at least partly because it was a reliable source of nonpathogenic hydration, as bacteria and parasites are killed during the boiling stage of brewing.

In 1741, Benjamin Franklin, when listing the thirteen cardinal virtues, started with "Temperance: Drink not to elevation." Still, he noted that beer, applejack, and other alcohol-containing beverages of the day were safer to drink than the water in Boston or Philadelphia. Like Londoners, the colonists drank beer with breakfast after a sherry eye-opener, and drank beer at lunch and brandy if it was cold. They would have wine with dinner and punch or other liqueurs thereafter. Dr. Benjamin Rush, a signer of the Declaration of Independence who is also known as the father of American psychiatry, became alarmed by what he viewed as rampant health problems caused by alcohol and called for temperance. He described addiction and identified alcohol as an addictive substance. He argued that addiction was like a disease, and that the alcoholic victim was completely unable to control his consumption. Dr. Rush, a citizen of the Enlightenment Age, accurately described and anticipated the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (DSM-5) description of alcohol use disorder. However, he also suggested that alcoholism could be treated by whippings, bleeding, shame, emetics, oaths, and plunging the patient in cold water.

American attitudes about alcohol have flip-flopped from a free marketplace in the 18th and 19th centuries, to Prohibition in the 1920s, to the repeal of Prohibition in the 1930s, to lowering of the legal drinking age in most states during the late 1960s and early 1970s, and a return to the 21-years-of-age limit with the National Minimum Drinking Age Act of 1984. Alcohol consumption tends to be high during war years and was lowest during the Great Depression [8]. It was very high in the early 1980s, perhaps due to the lowered drinking age and poor economy. Like other consumer goods, alcohol consumption is generally inversely affected by changes in taxes and prices [9]. But interesting trends have been noted in the United States. While inflation-adjusted prices of alcohol declined between the late 1970s through the late 1990s, per capita alcohol consumption has also been declining since the mid-1980s [8; 10]. One study revealed that changing demographics, such as a shift to an older population

PAST MONTH BINGE AND HEAVY ALCOHOL USE, 2019



Source: [12] *Figure 1*

that consumes less alcohol, could have more of an impact on consumption levels than falling prices. Other sources cite increased health awareness, national drunk-driving campaigns, and a less tolerant public attitude toward heavy drinking and youth intoxication [8].

This roller coaster of historical attitudes toward alcohol use results from conflicting sociologic and psychologic factors. For centuries, alcohol has been part of our social fabric and part of holidays and traditions. Simultaneously, our society has either shunned or punished those who succumbed to alcohol abuse, treating dependence as a legal issue or a moral failing rather than as a mental health problem. On one hand, alcohol is readily and cheaply accessible, safe for most people, moderately beneficial to health, and an important sector of our economy. However, we also understand that some individuals are at a high risk of losing control over alcohol.

CURRENT ESTIMATES OF ALCOHOL USE

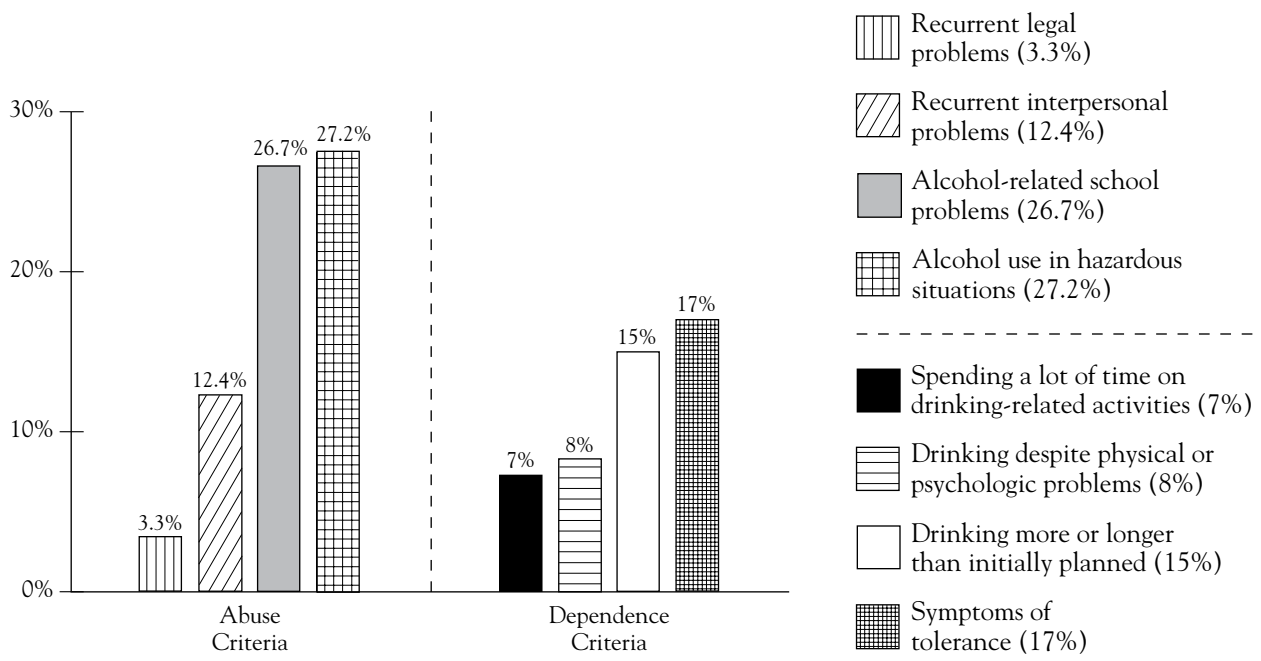
As many as 90% of adults in the United States have had some experience with alcohol [11]. People drink alcohol for a variety of reasons:

- The pleasurable feeling that often accompanies drinking, including reduced tension and/or anxiety
- Enjoyment of the taste
- Social inclusion
- Self-medication
- Peer pressure
- Behavioral and physical addiction

Slightly more than half (50.8%) of all Americans older than 12 years of age reported being current consumers of alcohol in the 2019 National Survey on Drug Use and Health [12]. This translates to an estimated 139.7 million people, up from the 2016 estimate of 136.7 million people [12; 13]. Nearly one-half (47.1%) of Americans participated in binge drinking at least once in the 30 days prior to the survey. This represents approximately 65.8 million people. Heavy drinking was reported by 35.9% of the population 12 years of age and older (16.0 million people). The 2019 estimates for binge and heavy drinking are substantially higher than the 2016 estimates [12]. Past-month binge and heavy alcohol use for Americans 12 years of age and older are presented in ***Figure 1***.

There is some evidence that drinking and alcohol-related injuries increased during the COVID-19 pandemic [361]. National mortality data revealed a 25% increase in alcohol-related deaths from 2019 to 2020, outpacing the all-cause increase in mortality over the same period (16.6%).

PERCENTAGE OF COLLEGE STUDENTS MEETING SPECIFIC ABUSE AND DEPENDENCE CRITERIA



Source: [16] *Figure 2*

Binge drinking among various races is 13.4% for Asians, 22.7% for blacks, 20.9% for American Indians or Alaska Natives, 25.8% for persons reporting two or more races, 25.0% for whites, and 24.2% for Hispanics [14].

Use of alcohol is higher for college graduates compared to those with only a high school diploma (90.3% and 82.2%, respectively) [14]. However, binge and heavy use is slightly higher for young adults 18 years of age and older who have not completed college [14]. The pattern of higher rates of current alcohol use, binge alcohol use, and heavy alcohol use among full-time college students, compared with rates for others 18 to 22 years of age, has remained consistent since 2002 [15]. In a 2002 study of alcohol use on college campuses, researchers at Harvard University reported that of the more than 14,000 students surveyed, 31% met the criteria for alcohol abuse and an additional 6% met the criteria for diagnosis of alcohol dependence [16]. In the study, alcohol abuse was defined as a positive response to any one of the four abuse criteria and the absence of dependence. Alcohol dependence was defined as a positive response to any three or more of seven dependence criteria. Percentages of students meeting specific alcohol abuse and dependence criteria are presented in ***Figure 2*** [16]. Male students are at greater risk than female students. Almost 10% of male students and 5% of female college students younger than 24 years of age met the criteria for a 12-month diagnosis of alcohol dependence [16].

About 40% of people who drink have experienced an alcohol-related problem [11]. Between 3% and 8% of women and 10% to 15% of men will develop alcohol use disorder at some point in their lives. While alcohol use disorders can develop at any age, repeated intoxication at an early age increases the risk of developing an alcohol use disorder [11]. Usually, dependence develops in the mid-twenties through age forty.

COSTS OF ALCOHOL USE DISORDERS

The National Institute on Drug Abuse (NIDA) and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) estimated that the annual economic cost of alcohol and drug abuse was $365.4 billion in 1998 [9]. This estimate represents roughly $1,350 each year for every man, woman, and child living in the United States. Alcohol use disorders generated about half of the estimated costs ($184.6 billion). This figure rose to $249 billion in 2010, representing approximately $807 for every man, woman, and child living in the United States [17].

Nearly three-fourths (72%) of the costs of alcohol abuse are related to lost workplace productivity ($179 billion); 11% are related to healthcare expenses for treating problems caused by excessive drinking ($28 billion); 10% are law enforcement and other criminal justice expenses ($25 billion); and 5% are losses from motor vehicle crashes related to excessive alcohol use ($13 billion) [17]. Binge drinking is responsible for the

majority of the cost at $191 billion [17]. Alcohol use disorder generally reduces the lifespan by 15 years [11]. Approximately $99.6 billion of the total costs of alcohol abuse is paid by federal, state, and local governments [17]. When both direct and indirect costs are included, the estimated annual cost of alcohol-related problems alone may be much greater [17].

DEFINITIONS

Tolerance: Either (1) a need for markedly increased amounts of the substance to achieve intoxication or desired effect; or (2) a markedly diminished effect with continued use of the same amount of the substance [18].

A Standard Drink: 1.5 ounces of 80-proof distilled spirits, 5 ounces of table wine, or 12 ounces of standard beer [19; 20].

Alcohol Intoxication: Clinically significant problematic behavioral or psychologic changes (e.g., inappropriate sexual or aggressive behavior, mood lability, impaired judgment) that developed during, or shortly after, alcohol ingestion [18]. Changes include slurred speech, loss of coordination, unsteady walking or running, impairment of attention or memory, nystagmus, stupor, or coma.

Alcohol Withdrawal: The presence of certain symptoms after stopping or reducing heavy and prolonged alcohol use [18]. The symptoms of alcohol withdrawal may develop within a few hours to a few days after stopping or reducing use and symptoms cause significant physical and emotional distress in social, occupational, or other important areas of functioning. Symptoms include increased hand tremor, sweating, increased pulse rate, nausea, vomiting, insomnia, temporary hallucinations or illusions, anxiety, psychomotor agitation, and generalized tonic-clonic seizures. Fewer than 5% of persons who develop alcohol withdrawal experience severe symptoms such as seizures and death [21].

Blood Alcohol Concentration (BAC): The percentage of alcohol present in the bloodstream. The BAC is usually what is measured by police officers to determine legal intoxication. It can be measured directly from a blood sample or a breath sample collected by a "Breathalyzer." The national legal limit for intoxication is a BAC of 0.08.

Moderate Drinking: No more than one drink per day for women and no more than two drinks per day for men [20].

Current Use: At least one drink in the past 30 days [17].

Binge Drinking: Consuming five or more drinks on the same occasion in the past 30 days [17].

Heavy Drinking: Five or more drinks on the same occasion on each of 5 or more days in the past 30 days [17].

Fetal Alcohol Syndrome (FAS): A severe fetal alcohol spectrum disease (FASD), FAS is a lifelong syndrome in children with confirmed prenatal exposure to alcohol. Signs include growth deficiencies, facial abnormalities, and neurocognitive deficits that may lead to problems with vision, hearing, attention, learning, memory, or any combination thereof [22]. There is no safe recommended level of alcohol use in pregnancy.

BENEFITS

Alcohol is consumed sensibly by the vast majority, but it can also be a cause of considerable damage and death when used excessively. Alcohol is part of many cultures, and most individuals learn from their bad experiences to moderate their drinking. Consequently, the majority of people do not have accidents or develop alcohol use disorder. Additionally, data suggests that moderate consumption of alcohol does have some health benefits.

The French consume large amounts of wine and high-cholesterol foods, yet they have a low incidence of heart disease. The Japanese drink large amounts of sake, but eat basically low-cholesterol foods and have a low incidence of heart disease. Other cultures traditionally drink whiskey and beer. Should we be drinking more, more regularly, or less on both counts?

Data for health benefits associated with low-to-moderate drinking appear to be common in many medical journals [23]. Light-to-moderate alcohol intake from beer, wine, or spirits is associated with a reduction in all-cause mortality, possibly due to its ability to decrease cardiovascular diseases, especially coronary heart disease (CHD). The relationship between alcohol intake and reduced risk of coronary disease is generally accepted as a U-shaped curve of low-dose protective effect and higher doses producing a loss of protective effects and increased all-cause deaths [25; 26; 27; 28; 29; 30; 31; 32]. The World Health Organization (WHO) reported that there is convincing evidence that low-to-moderate alcohol intake decreases risk for heart disease [24].

Many researchers have replicated the finding that moderate alcohol consumption is associated with a reduced risk of coronary artery disease, peripheral artery disease, sudden death, and stroke and suggest that this effect is to a large extent mediated by increases in high-density lipoproteins (HDLs) [1]. A 2011 meta-analysis inclusive of 84 out of 4,235 studies on the benefits of alcohol concluded that the lowest risk of CHD mortality was conferred by one to two drinks per day and that the lowest stroke mortality risk was conferred by consuming one or fewer drinks per day [2]. Research suggests that the protective effect may be a result of an interaction between diet and genetics, specifically related to a genetic variation in alcohol dehydrogenase (ADH) [33]. Moderate drinkers who are homozygous for the slow-oxidizing ADH3 allele have higher HDL levels and a substantially decreased risk of myocardial infarction [33]. An acute protective effect of alcohol consumption was also found for regular drinkers who consumed one or two drinks in the 24 hours preceding the onset of cardiac symptoms. Risk of a major coronary event

is lowest among men who report daily drinking and among women who report one or two drinks daily. Alcohol does have effects on several markers for coronary risk factors, such as blood pressure, HDL cholesterol, low-density-lipoprotein (LDL) cholesterol, fibrinogen, clotting factors, and insulin sensitivity.

Prescribing alcohol to patients is not recommended, but research should continue in an attempt to identify the beneficial effects of alcohol alone. The psychiatric and other medical costs associated with drinking should be considered. Epidemiologists and other researchers are weighing the benefits of moderate alcohol consumption against the risks of addiction and accidents.

Alcohol clearly causes detrimental effects on a number of critical organs and systems in the human body when taken in large doses over time. Excessive alcohol consumption increases cardiovascular risk factors and mortality. Alcohol abuse is often considered the second most common cause of preventable death in the United States [34]. However, light-to-moderate drinking may protect against ischemic stroke and abstaining from alcohol may increase the risk of stroke [2]. A prospective study of moderate alcohol consumption and risk of peripheral arterial disease in U.S. male physicians found that any alcohol consumption decreases the risk of peripheral artery disease [1]. No evidence exists for a reduction in cardiovascular mortality in anyone younger than 40 years of age. Because almost no one dies of coronary artery disease before age 40, the studies to see if drinking in individuals younger than 40 years of age is particularly protective in later life have yet to be done.

Cardiovascular protection occurs primarily through blood lipids such as HDL, especially HDL subfraction 2 [1]. Moderate alcohol consumption inhibits platelets, especially after a fatty meal, suggesting an aspirin-like effect for moderate alcohol consumption [35]. Alcohol's effects on clotting appear to be related to the findings that drinking reduces acute heart attack risk. Certain alcoholic beverages, namely red wine, may also have an additional positive antioxidant effect as it contains flavonoids, which possibly slow oxidation of unsaturated fatty acids [36]. Additionally, low amounts of drinking can also enhance insulin sensitivity, reduce fasting insulin, and may also reduce stress.

Risk-to-benefit analysis should take into account a person's age, sex, family history, likelihood of an adverse effect on blood pressure, cancer risk, medication interaction, accidents, and dependency. Light-to-moderate alcohol consumption reduces overall risk of ischemic stroke; however, greater alcohol consumption has no additional benefit and can be harmful [2].

It has been questioned whether the cardiac protective effects can be easily generalized to women, in whom the risk of breast cancer complicates alcohol risks. For example, the consumption of seven or more drinks per week is associated with a twofold increase in postmenopausal hormone-sensitive breast cancers; however, several studies have shown that moderate alcohol consumption reduces the mortality of breast cancer [37; 38; 39]. It should also not be forgotten that alcohol increases the risk of certain other cancers (e.g., liver, mouth, esophageal, laryngeal, pharyngeal) that affect both men and women. After adjusting for the effects of age, smoking, and medical history, both men and women who consume one or two drinks of alcohol five or six days a week have a reduction in risk of a major coronary event compared with men and women who are nondrinkers [40].

Moderate drinking is heart-healthy for diabetics in the same way it is for other people, easing concerns that alcohol may disrupt diabetics' blood-sugar balance. In a 12-year study, diabetics who had one or two drinks daily were up to 80% less likely to die of heart disease than diabetics who did not drink [41].

WHAT TO ADVISE PATIENTS ABOUT DRINKING ALCOHOL

Although alcohol appears to have some moderate health benefits, physicians need not alter the drinking habits of those who consume low-to-moderate amounts of alcohol. It is problematic to advise a patient who is abstinent or who drinks infrequently to begin or increase alcohol consumption. In addition, social and religious factors may already dictate the patient's drinking habits.

Vulnerability to alcohol use disorders, depression, and alcohol-related pathologies varies greatly among individuals and cannot always be predicted before a patient begins or escalates drinking. Some individuals may be genetically predisposed to acquiring problems with alcohol use disorder. Similarly, excessive consumption often escapes detection before the onset of related health consequences. The balance of risk to benefit appears to favor encouraging some patients in midlife who are very infrequent drinkers to increase slightly the frequency of drinking. Again, this is debatable and will vary with the individual patient. Consuming alcohol is not the only means to reduce the risk of cardiovascular disease. Exercising, not smoking, lowering fat intake and lipids, and other health-related lifestyle issues should also be addressed.

For those who already have heart disease, it is clear that heavy drinkers should reduce their consumption or abstain and that everyone should avoid heavy and binge drinking. Data does not support advising abstainers with a history of myocardial infarction or decreased left ventricular function to start drinking for their health [42]. In general, moderate drinkers with these conditions should be able to continue to drink alcohol in moderation [42].

Alcohol is not without risks. Alcohol abuse worsens the course of psychiatric disorders. In countries with high alcohol consumption, the suicide rate is also high. One should ask whether the promotion of moderate alcohol consumption, justified on the basis of a biomedical effect (e.g., a reduction in all-cause mortality), might change a patient's quality of life or cause them to take offense. However, existing public educational efforts that target reductions in hazardous and harmful drinking and at the same time encourage drinkers to consume alcohol at responsible levels are appropriate and ethical.

RISK AND PROTECTIVE FACTORS

ALCOHOL AND GENETICS

Research has shown that genetic factors play a strong role in whether a person develops alcohol use disorder, accounting for 40% to 60% of the risk [43; 44]. In fact, family transmission of alcohol use disorder has been well established. Individuals who have relatives with alcohol use disorder are at three- to five-times greater risk of developing alcohol use disorder than the general population. The presence of alcohol use disorder in one or both biologic parents is more important than the presence of alcohol use disorder in one or both adoptive parents. The genetic risk of alcohol use disorder increases with the number of relatives with alcohol use disorder and the closeness of the genetic relationship [44]. However, most children of parents with alcohol use disorder do not become alcoholics themselves, and some children from families where alcohol is not a problem develop alcohol use disorders when they get older. Alcohol use disorder is seen in twins from alcoholic parents, even when they are raised in environments where there is little or no drinking. Identical twins adopted into households with an alcoholic stepfather do not show more alcohol use disorders than the general population. Children with close biologic relatives with alcohol use disorder, who are adopted into a never drinking, even religiously opposed family, can readily develop alcohol problems [45].

As mentioned previously, genetic factors are thought to account for 40% to 60% of the risk of developing alcohol use disorder [27; 44]. Animal studies have shown that genetic factors may be responsible for enhanced brain reward produced by alcohol, decreased initial impairment, or even altered metabolism of alcohol [46; 47; 48; 49; 50; 51; 52].

Genetic factors appear to influence the level of response (LR) to alcohol, as measured by the intensity with which one reacts to a given quantity [53]. The level of response to alcohol varies from individual to individual depending on the tolerance. Low LR at an early age contributes to the risk of alcohol use disorder later in life [53; 54].

Genetic differences in metabolic or other biologic processes may play a role in the development of alcohol use disorder in specific individuals. Studies using a self-rated scale have shown consistent results in sons of alcoholic fathers scoring themselves lower than sons of nonalcoholic fathers on feelings of drunkenness, dizziness, drug effect, and sleepiness following alcohol consumption [55]. This suggests that sons of alcoholic fathers have a less intense reaction to alcohol than sons of nonalcoholic fathers. Low reaction to alcohol suggests tolerance and impaired ability to recognize even modest levels of alcohol intoxication, indicators of tendency towards dependence [56; 57]. High alcohol sensitivity in men is associated with substantially decreased risk of alcohol use disorder. Understanding reactions to alcohol could establish a better understanding of future risk of developing alcohol use disorder in these men.

Studies have found similar results of higher tolerance for alcohol among daughters of parents with alcohol use disorder. One study examined the drinking patterns of 38 daughters of alcoholics compared with 75 family-history-positive men from the same families and 68 men with no family history of alcohol use disorder [58]. Family-history-positive men and women both displayed low reaction to alcohol. This indicates that the degree of genetic influence on alcohol-related behavior is similar for both men and women with family history of alcohol use disorder. In a study of adolescent and young adult offspring from families where alcohol use disorders are prevalent, researchers found both neurophysiologic and neuroanatomical differences, such as reduced right amygdala volume, when comparing these offspring to controls [59]. Another study assessed the relationship between amygdala and orbitofrontal cortex volumes obtained in adolescence and substance use disorder outcomes in young adulthood among high-risk offspring and low-risk controls [60]. A total of 78 participants 8 to 19 years of age (40 high-risk, 38 low-risk) from a longitudinal family study underwent magnetic resonance imaging. Volumes were obtained with manual tracing. Outcomes were assessed at approximately one-year intervals. The ratio of orbitofrontal cortex volume to amygdala volume significantly predicted substance use disorder survival time across the sample. A reduction in survival time was seen in participants with smaller ratios; this was true for both high-risk and low-risk participants [60].

Native Americans and Alaskan Natives have a lower level of response and an increased risk of alcohol use disorder [44]. The alcohol metabolizing enzymes are another important genetic influence, especially for persons of Asian descent. About 50% of Japanese, Chinese, and Korean persons flush and have a more intense response to alcohol because they have a form of alcohol dehydrogenase (ADH) that causes high levels of acetaldehyde. Forms of ADH and aldehyde dehydrogenase (ALDH) (e.g., homozygous or heterozygous) contribute to a higher rate of alcohol metabolism, intensify the response to alcohol, and lower the risk of alcohol use

disorder. High levels of impulsivity/sensations seeking/disinhibition are also genetically influenced and may impact alcohol use disorder risk [44].

At least 95,000 people (approximately 68,000 men and 27,000 women) die from alcohol-related causes annually. According to NIAAA, alcohol is a significant cause of death, disease, and disability, currently ranked as the third leading preventable cause of death in the United States [355]. According to a 2020 SAMSHA survey reported by NSDUH, 14.5 million Americans 12 years of age and older (5.3% of this age group) have alcohol use disorder [355]. Almost 1 in 4 adults have had a heavy drinking event in the past year (defined as five or more drinks for men and four or more drinks for women). The NIH and the CDC report increasing alcohol problems, deaths, and alcohol use disorders. The number of death certificates mentioning alcohol more than doubled between 1999 and 2017, and alcohol plays a role in approximately 3% of all deaths in the United States [356]. Increases in alcohol-related deaths are consistent with reports of increased alcohol sales, consumption, alcohol-involved emergency department visits, and hospitalizations. The most recent alcohol data provide more evidence of increasing heavy alcohol use and associated consequences during the COVID-19 pandemic [357]. Increased alcohol use may also worsen medical and mental health problems.

PSYCHOLOGIC AND SOCIOENVIRONMENTAL RISK FACTORS MODELS

Researchers who study risk factors have developed models of how known risk factors may interact to create pathways in children that lead to alcohol use disorders.

Children with Conduct Problems

One model focuses on children who have temperaments that make it difficult for them to regulate their emotions and control their impulses. Clearly, these children are difficult to parent, and if one or both of their parents have alcohol use disorder, it is likely that they will be poorly socialized and have trouble getting along in school [61; 62]. Poor academic performance and rejection by more mainstream peers at school may make it more likely for these children to join peer groups where drinking and other risky behaviors are encouraged. Parents with alcohol use disorders will likely not monitor their children closely and will lose control over them at an early age. These children will begin drinking early, often before 15 years of age [63]. If such a child is genetically predisposed to alcohol use disorders, these environmental factors may further increase the tendency [64].

Stress and Distress

Another model of risk factors leading to alcohol use disorder focuses on drinking to regulate inner distress [65]. Some children have temperaments that make them highly reactive to stress and disruption. This type of child may be born into a family with history of alcohol use disorder, where the stressors may be intense, or a nonalcoholic family, with everyday types of low-level stressors. Regardless of the child's family environment, he or she maintains higher levels of inner distress (anxious and depressed feelings) than other children. When they take their first drink, the inner distress dissipates for a while. This leads to more drinking and may lead to alcohol use disorder. However, for some individuals, at certain doses, alcohol may induce rather than reduce the stress response. Research demonstrates that alcohol actually induces the stress response by stimulating hormone release by the hypothalamus, pituitary, and adrenal glands [66]. Research also demonstrates a bidirectional relationship between alcohol and stress [67]. More research is required before the role of stress as a risk factor in alcohol use disorders is understood.

Sensitivity to Alcohol's Effects

A third risk factor model focuses on sensitivity to the effects of alcohol, both to its sedative properties and its stimulating qualities [68]. The stimulant-like (increased heart rate and blood pressure) and sedative properties (impaired vigilance and psychomotor performance) depend on the quantity of alcohol consumed, the time elapsed since consumption, and individual differences in response [69; 70]. Researchers believe that this subjective response to alcohol may be an important endophenotype in understanding genetic influences on drinking behavior and alcohol use disorders. While subjective response predicts alcohol use and problems, the exact pattern of association remains unclear [71; 72; 73]. Two prominent models of subjective response have been discussed in the literature. The low level of response model suggests that high-risk individuals experience decreased sensitivity to the full range of the effects of alcohol. The differentiator model suggests that high risk for alcohol problems is associated with increased sensitivity to alcohol's positive effects but decreased sensitivity to its negative effects [71; 72]. A literature review of studies that employed challenge paradigms to assess a range of the effects of alcohol (i.e., impairment, stimulation, sedation) found some support for both models [71]. Results of a quantitative review and meta-analysis suggest that the two models may describe two distinct sets of phenotypic risk with different etiologies and predictions for development of alcohol use disorder [72]. A total of 32 independent samples were combined to produce estimates of the effects of risk-group status (i.e., positive family history of alcohol use disorder or heavy alcohol consumption). Groups with positive family history for alcohol experienced reduced overall subjective response relative to groups with negative family history, as predicted by the low level of response model. In contrast, consistent with the differentiator model, heavy drinkers of both genders responded less on measures of sedation than did lighter drinkers, but more on measures of stimulation [72].

The effects of alcohol on the electroencephalogram (EEG) of subjects at risk for developing alcoholism are well known [74; 75; 76]. Researchers found that low EEG response to small amounts of alcohol may be associated with future development of alcohol use disorder. Additionally, differences in EEG response to alcohol may have ethnic variations [76]. Other studies have shown that heavy drinkers had less sedation and cortisol response after alcohol consumption than light drinkers. In addition, heavy drinkers were more sensitive to the positive stimulant-like properties as blood alcohol levels increased [68; 77].

KNOWN RISK FACTORS FOR ALCOHOL USE DISORDER

With these three models in mind, a review of some of the research findings on genetic and psychosocial risk factors may provide a better understanding of the factors leading to alcohol use disorders [11; 78]:

- Temperament: Moodiness, negativity, and provocative behavior may lead to a child being criticized by teachers and parents. These strained adult-child interactions may increase the chances that a child will drink.
- Hyperactivity: Hyperactivity in childhood is a risk factor for the development of adult alcohol use disorders. Children with attention deficit hyperactivity disorder (ADHD) and conduct disorders have increased risk of developing an alcohol use disorder. Childhood aggression also may predict adult alcohol abuse.
- Parents: The most compelling and largest body of research shows parents' use and attitudes toward use to be the most important factor in an adolescent's decision to drink.
- Gender: Among adults, heavy alcohol use is almost three times more common among men than women and also more common among boys in middle or high school than among girls. Men with ADHD and/or conduct disorders are more likely to use alcohol than men without these disorders, while women who experience more depression, anxiety, and social avoidance as children are more likely to begin using alcohol as teens than women who do not experience these negative states.
- Psychology: Bipolar disorder, schizophrenia, antisocial personality disorder, and panic disorder all also increase the risk of a future alcohol use disorder.

ABUSE AND ADVERSE CONDITIONS IN THE HOME

Childhood abuse is a significant risk factor for later alcohol and substance abuse [79]. Women who were physically abused are 1.5 to 2 times more likely to abuse alcohol than non-abused adults. Children from crowded, noisy, and disorderly homes without rules or religion are more likely to abuse alcohol as teens. Children who are quick to anger, who perceive themselves to be highly stressed, who are resentful of parents' absences, or who have repeated conflicts at home are more likely to abuse alcohol as teens.

PROTECTIVE FACTORS

An exciting area of research is focused on protective factors and poses the question, "What protects children from taking one of the risk pathways to alcohol use disorder?"

In 1997, some good news came from the National Longitudinal Study on Adolescent Health, a survey in which nearly 12,000 students in grades 7 through 12 were given lengthy interviews timed one year apart. The researchers were trying to determine what kept children, over the course of that year, from taking health risks in four areas: substance abuse (cigarettes, alcohol, and marijuana), sexuality, violence, and emotional health [80]. The researchers found two factors that protected these children in all four areas. They named the factors: parent-family connectedness and school connectedness.

Children identified as having parent-family connectedness said they felt close to their mother or father, felt that their mother or father cared about them, felt satisfied with their relationship with their mother or father, and felt loved by family members [80]. School connectedness was experienced as a feeling of being part of one's school and a belief that students were treated fairly by the teachers.

There is broad evidence of the protective role of parenting on adolescent health risks. Another well-established protective factor is adolescents' perceived disapproval of alcohol use by their parents [81; 82; 83; 84; 85]. In 2019, the National Survey on Drug Use and Health asked children 12 to 17 years of age about their perceptions of the level of parental disapproval of substance use initiation, including alcohol [14]. Most adolescents (90.6%) reported that their parents would strongly disapprove of them having one or two alcoholic drinks nearly every day. This percentage was similar to percentages in most years since 2002, with rates ranging from 88.5% to 91.2% [14]. The number of past-year initiates 12 years of age or older for alcohol also remained stable between 2002 and 2019 [14].

ALCOHOL USE DISORDER

Alcohol use disorder, also referred to as alcohol abuse and/or alcohol dependence, is defined in the DSM-5 as a problematic pattern of use with two or more of the following criteria over a one-year period [18]:

- Alcohol often taken in larger amounts or over a longer period than was intended
- A persistent desire or unsuccessful efforts to cut down or control alcohol use

- A great deal of time spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects
- Craving, or a strong desire or urge to use alcohol
- Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home
- Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol
- Important social, occupational, or recreational activities given up or reduced because of alcohol use
- Recurrent alcohol use in situations in which it is physically hazardous
- Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychologic problem that is likely to have been caused or exacerbated by alcohol
- Tolerance
- Withdrawal

Alcohol use disorder is extremely amenable to brief intervention. Brief intervention usually includes giving patients information about problems associated with excessive drinking and advising them to cut down on their drinking or abstain. Without intervention, 10% will likely progress to dependence and 50% to 60% will continue to experience problems over the next five years [87; 88].

Alcohol use disorder is a primary and chronic disease that is progressive and often fatal; it is not a symptom of another physical or mental condition. It is a disease in itself, like cancer or heart disease, with a very recognizable set of symptoms that are shared by others with the same disorder. About 14.5 million people in the United States met DSM-5 criteria for alcohol use disorder in 2019, with an additional 5.9 million abusing or dependent on both alcohol and illicit drugs [89].

Like cancer and many other chronic diseases, alcohol use disorder progresses over time. People with alcohol use disorder experience physical, emotional, and other changes in their lives and relationships. These changes may worsen if drinking continues and if treatment specifically targeted to alcohol use disorder is not initiated. Left untreated, alcohol use disorders may lead to premature death through overdose or through damage to the brain, liver, heart, and many other organs. Excessive alcohol consumption is highly associated with suicide, motor vehicle accidents, violence, and other traumatic events [89]. People with untreated alcohol use disorders often lose their jobs, their families, their relationships, and other freedoms that were once important to them.

As noted, alcohol problems can often be prevented by early identification and brief intervention. A weak link in the early identification of problems is the lack of skill and competencies necessary to perform such an assessment and the experience to confidently move to more specific questions and suggestions for change.

The U.S. Preventive Services Task Force (USPSTF) recommends screening for unhealthy alcohol use in primary care settings in adults 18 years of age or older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use.

(https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/unhealthy-alcohol-use-in-adolescents-and-adults-screening-and-behavioral-counseling-interventions. Last accessed May 10, 2021.)

Strength of Recommendation/Level of Evidence: B (The USPSTF recommends that clinicians provide this service to eligible patients based on at least fair evidence that the service improves important health outcomes and concludes that benefits outweigh harms.)

Alcohol dependence is included in the DSM-5 umbrella definition of alcohol use disorder [18]. The symptoms of withdrawal and tolerance have been the hallmarks of more severe disease, though alone they are neither necessary for nor sufficient to make the diagnosis.

Healthcare professionals should understand the criteria and warning signs of alcohol use disorder. This enables confrontation and intervention earlier in the course of the illness rather than relying on toxic liver markers. Verifying the facts that show a person is at risk for alcohol use disorder and confronting the impaired individual with those facts is the definition of an office or brief intervention. Brief intervention is most effective before dependence is reached. Once diagnosable, the patient needs more comprehensive intervention.

WITHDRAWAL

Individuals with alcohol use disorder often experience a severe, potentially fatal withdrawal syndrome when they either abruptly discontinue or sharply reduce their alcohol consumption. The symptoms may include sweating, rapid heartbeat, hypertension, tremors, anorexia, insomnia, agitation, anxiety, nausea, and vomiting. Tremors of the hands are usually the earliest symptom of alcohol withdrawal. Hallucinosis, seizures, and delirium tremens (DTs) are the most severe form of alcohol withdrawal. Hallucinosis, when it occurs, occurs one to two days after decreasing or abstaining from alcohol. While the effects of DTs can be life threatening, all other symptoms, with or without treatment, usually resolve several hours or days after appearance.

Alcohol withdrawal in tolerant individuals can occur before the BAC has dropped below the established legal limit for intoxication. Some persons with alcohol use disorder have symptoms of irritability, emotional lability, insomnia, and anxiety that persist for weeks to months after alcohol withdrawal. The symptoms may be due to the residual effects of alcohol toxicity on the central nervous system and can be post-acute withdrawal symptoms; members of Alcoholics Anonymous (AA) refer to this as being a "dry drunk." AA considers alcoholics who are only abstaining from alcohol but who are not working a recovery program and remaining in essentially the same emotional state as they were when they were drinking to be "dry drunks."

INCREASED TOLERANCE

Long-term heavy drinking and genetic predisposition can result in the development of tolerance, which is the body's adaptation to the presence of alcohol. As tolerance develops, the drinker requires increasing amounts of alcohol to feel the same effect. For this reason, the usual reported effects for various BAC levels do not apply to individuals with tolerance. In our society, people are often admired for their ability to "hold their drinks." But the fact is, tolerance may be an early warning sign that a physical dependence on alcohol is developing. During the late stages of alcohol use disorder, reverse-tolerance occurs, meaning the individual becomes intoxicated more quickly and with less alcohol.

IMPAIRED CONTROL OF DRINKING

Impaired control over drinking means that a person is consistently unable to limit the number of occasions when alcohol is used or the amount of alcohol ingested on those occasions. Often, because of the damage alcohol causes in their lives, people with alcohol use disorder will express a strong and persistent desire to cut down or stop drinking. Often they may be able to do so, sometimes for a matter of weeks, a month, or even longer. One does not need to be a daily drinker to meet criteria for alcohol use disorder, as even those who go weeks or months without a drink may binge and meet diagnostic criteria. However, because alcohol use disorder is a chronic progressive disease, once patients with alcohol use disorder resume drinking, even after years of sobriety, they typically return to the previous quantities of consumption, with worsening adverse consequences.

PREOCCUPATION WITH ALCOHOL

Individuals with alcohol use disorder may have a preoccupation with alcohol, defined as a noticeable shift in priorities, with a focus on obtaining and consuming an adequate supply of alcohol. Drinking alcohol becomes a central focus in their lives. Over time, the energies of individuals with alcohol use disorder are diverted from people, places, and things that were once important to them.

Another highly noticeable feature of the preoccupation with alcohol may be the large amount of time that drinking consumes. Thinking about alcohol, obtaining alcohol, drinking alcohol, and recovering from the effects of alcohol take more and more of the individual's time. Hobbies and other activities once enjoyed are abandoned one by one, and the only pleasure seems to come from drinking.

USE OF ALCOHOL DESPITE ADVERSE CONSEQUENCES

Continued drinking despite adverse consequences is characterized by the inability of individuals with alcohol use disorder to stop drinking even when they recognize that their family, interpersonal, spiritual, occupational, legal, and financial problems are the result of their drinking. Furthermore, alcohol may be causing serious health and psychologic problems (e.g., anemia, gastritis, liver disease, neurologic disorders, depression) and still the dependent individual cannot stop.

DENIAL AS A DEFENSE MECHANISM

Denial is a common characteristic distortion in thinking that becomes profound in people with alcohol use disorder. For decades, those who have treated individuals with alcohol use disorder, and recovering alcoholics themselves, have puzzled over why these persons continue to drink when the link between alcohol and the losses they suffer is so clear. Denial is an integral part of the disease of alcohol use disorder and a major obstacle to recovery. Although the term denial is not specifically used in the wording of the diagnostic criteria, it underlies the primary criteria described as, "drinking despite adverse consequences."

RELAPSE

Because alcohol use disorder is a chronic disease, another symptom that is increasingly being recognized and treated is relapse. Although alcohol use disorder is a treatable, chronic disease, as yet, no cure has been found. This means that even if individuals with alcohol use disorder have been sober for a long time and have regained their health and reclaimed other important aspects of their lives, they may experience a relapse that will require further treatment in order to return to remission.

PHYSICAL CLUES THAT MAY SUGGEST ALCOHOL USE DISORDER

While a strong attachment to alcohol is the hallmark of early dependency, if the patient refuses to acknowledge a problem and no one from home or work helps to confirm the diagnosis, healthcare professionals are often left with nothing more than clinical intuition, resulting in a missed diagnosis. However, late in the course of alcohol use disorder, physical clues typically become increasingly apparent and suggestive of alcohol abuse and/or dependence. Alcohol abuse and dependence are often referred to as the "Great Masquerader" because many of the signs and symptoms are also commonly found in other conditions [90].

Elevated Laboratory Findings

- Serum glutamic oxaloacetic transaminase (SGOT)
- Lactic acid dehydrogenase (LDH)
- Cholesterol
- Gamma-glutamyltransferase (GGT)
- Mean corpuscular volume (MCV)
- Alkaline phosphatase
- Triglycerides
- Blood alcohol concentration (BAC)
- Urinary ethyl glucuronide (EtG) and ethyl sulfate (EtS)
- Whole blood phosphatidylethanol (PEth)
- Serum transferrin
- Uric acid

Gastrointestinal Signs/Symptoms

- Nausea
- Vomiting
- Reflux
- Diarrhea
- Gastritis
- Ulcers
- Esophagitis

Cardiopulmonary Signs/Symptoms

- Hypertension
- Palpitations
- Arrhythmias
- Recurrent respiratory infections

Central Nervous System (CNS) Signs/Symptoms

- Anxiety
- Insomnia
- Memory impairment
- Depression
- Irritability
- Panic
- Suicide attempt(s)
- Suicidal thinking

Behavioral Clues

- Loss of interest in previously favorite activities and people
- Marital and financial problems
- Positive family history
- Cigarette smoking
- Problems at home and work
- Anger when someone asks about drinking
- Legal difficulties
- Higher than normal scores on screening questionnaires, such as the Michigan Alcohol Screening Test (MAST) and CAGE

Miscellaneous Signs/Symptoms

- Gout
- Impotence
- Bloated face
- Parotid swelling
- Trauma injuries
- Aches and pains
- Unusual accidents
- Broken bones
- Driving accidents, multiple citations, and other problems

COMPLICATIONS

Alcohol use disorders are often associated with physical disorders and related problems.

LIVER DISEASE

The liver is a particularly vulnerable organ to alcohol consumption, in large part because it is where alcohol is metabolized prior to elimination from the body. As few as six drinks a day for men have been found to be associated with liver damage. The most common manifestation among persons with alcohol use disorder is called "fatty liver." Among heavy drinkers, the incidence of fatty liver is almost universal. For some, a fatty liver may precede the onset of alcoholic cirrhosis. Fatty deposits have been associated with men who have six or more drinks a day and women who have only one or two drinks daily.

Alcoholic hepatitis is a condition that, when severe, is characterized by jaundice, fever, anorexia, and right upper-quadrant pain. Between 10% and 35% of heavy drinkers (those drinking five or six standard drinks a day or more) develop alcoholic hepatitis and 10% to 20% develop cirrhosis [91; 92]. More than 60% of persons who develop both alcoholic hepatitis and cirrhosis will die within four years. Drinking 12 beers a day for 20 years has been associated with a 50% incidence of cirrhosis. It is not known which individuals will develop cirrhosis. Studies have shown that women develop liver disease faster and at lower levels of alcohol consumption than men [92; 93]. Women also have a higher incidence of alcoholic hepatitis and higher mortality rate from cirrhosis [94].

Alcohol use disorder is also a strong predictive factor for the development of hepatocellular cancer [95]. The presence of other hepatic risk factors, including hepatitis C, fatty liver disease, smoking, and obesity, further increases this risk.

Liver Transplantation

The leading indication for liver transplantation in the United States is chronic hepatitis C [96]. Cirrhosis due to alcoholic liver disease is the second most common cause for a person to require a liver transplantation [96]. Candidates for liver transplantation should be adequately screened for alcohol use disorders and receive appropriate treatment both perioperatively and as part of long-term follow-up. Patient survival after transplantation for both of these conditions is surprisingly good, with 72% of patients surviving after five years [96]. Short-term survival is similar; however, long-term survival for patients with hepatitis C now appears to be compromised by universal recurrence. When patients have both alcohol use disorder and chronic hepatitis C, they do worse than when both diseases occur independently. One study demonstrated that patients' short-term survival is the same for those who have alcohol use disorder, hepatitis C, or both diseases [97].

ALCOHOL/ACETAMINOPHEN INTERACTION

Chronic heavy drinking appears to activate the enzyme CYP2E1, which may be responsible for transforming the over-the-counter pain reliever acetaminophen into toxic metabolites that can cause liver damage [98]. Even when acetaminophen is taken in standard therapeutic doses, liver damage has been reported in this population [99; 100]. A review of studies of liver damage resulting from acetaminophen-alcohol interaction reported that, in individuals with alcohol use disorder, these effects may occur with as little as 2.6 grams of acetaminophen (four to five "extra-strength" pills) taken over the course of the day by persons consuming varying amounts of alcohol [101]. The damage caused by alcohol-acetaminophen interaction is more likely to occur when acetaminophen is taken after, rather than before, the alcohol has been metabolized [102]. Moderate drinkers should also be made aware of this potential for interaction. There is now a warning label on the bottle that states, "If you consume three or more alcoholic drinks every day, ask your doctor whether you should take acetaminophen or other pain relievers/fever reducers." Further, in 2014 the U.S. Food and Drug Administration (FDA) issued a statement that combination prescription pain relievers containing more than 325 mg acetaminophen per dosage unit should no longer be prescribed due to reported severe liver injury with acetaminophen in patients who took more than the prescribed dose in a 24-hour period; took more than one acetaminophen-containing product at the same time; or drank alcohol while taking acetaminophen products [103].

CARDIOVASCULAR DISORDERS

Alcohol can have a detrimental effect on the heart, including a decrease in myocardial contractility, hypertension, atrial and ventricular arrhythmias, and secondary nonischemic dilated cardiomyopathy [104]. A common complication in alcohol use disorder is elevated pulse and blood pressure, often in the hypertension range. Younger people with alcohol use disorder and those without existing hypertension are less likely to have an elevation than those who are older and predisposed to some hypertension. When drinking stops, the blood pressure often returns to normal over a period of a few days. One study found that people who had six or more drinks a day were twice as likely to suffer from hypertension than moderate drinkers (two or fewer drinks per day) or nondrinkers. Increased serum GGT levels may be an indicator of an individual's susceptibility to the hypertensive effect of alcohol [105].

Aside from hypertension, chronic heavy drinking can adversely affect the heart primarily through direct toxicity to striated muscle, leading to a form of cardiomyopathy [104; 106]. Alcoholic cardiomyopathy is probably more common than is currently thought because of underdiagnosis of alcohol use disorder in general. The reported prevalence of alcoholic cardiomyopathy has varied widely from 4% to 40% or more, depending on the characteristics of the study population and the threshold of alcohol consumption used to identify the disorder [107].

The association between heavy alcohol consumption and rhythm disturbances, particularly supraventricular tachyarrhythmias in apparently healthy people, is called "holiday heart syndrome" [106; 108]. The syndrome was first described in persons with heavy alcohol consumption, who typically presented on weekends or after holidays, but it may also occur in patients who usually drink little or no alcohol [106; 109]. The most common rhythm disorder is atrial fibrillation, which usually converts to normal sinus rhythm within 24 hours. The incidence of holiday heart syndrome depends on the drinking habits of the studied population. Holiday heart syndrome should be considered as a diagnosis particularly in patients without overt heart disease presenting with new onset atrial fibrillation. Though recurrences occur, the clinical course is benign and specific antiarrhythmic therapy is usually not warranted [106; 108; 109].

Vitamin Deficiency, Alcohol, and Cardiovascular Disease

Abnormally high plasma levels of the amino acid homocysteine have been shown in studies to increase the risk for cardiac and other vascular diseases [110]. Even small increases in homocysteine appear to increase the risk of heart disease. Vitamins like folate, B12, and B6 are required for homocysteine disposal within cells. The lower the concentration of these and other vitamins, the greater the concentration of homocysteine. A number of nutritional problems have been

reported in people with alcohol use disorder. Malnourished persons with alcohol use disorder and liver diseases have been found to have B6 and folate deficiencies. In addition, average homocysteine levels are twice as high in patients with chronic alcohol use disorder when compared to non-drinking controls. Thus, homocysteine may contribute to the cardiovascular complications experienced by many with chronic alcohol use disorder. Lowering homocysteine with B vitamin supplementation may reduce cardiovascular risk [111; 112]. Further research is necessary to determine whether abstinence and recovery reverses the risk of cardiovascular disease, and whether folate and vitamins B12 and B6 should be considered as appropriate nutritional supplements for patients with alcohol use disorder [113].

CANCER

Heavy drinking increases the risk of cancer of the upper gastrointestinal and respiratory tracts [114]. Almost 50% of cancers of the mouth, pharynx, and larynx and approximately 75% of esophageal cancers in the United States are associated with chronic, excessive alcohol consumption [115; 116; 117]. When alcohol consumption is combined with tobacco use, the risk of esophageal cancer increases markedly, as much as 130-fold in one study [118; 119]. Alcohol increases production of estradiol, and increased levels of estradiol have been linked to an increased risk of breast cancer in women who drink [120].

GASTROINTESTINAL DISORDERS

Alcohol produces irritation and inflammation of the mucosal lining of the gastrointestinal tract and influences the motility in the esophagus, stomach, and small bowel [121]. Frank ulceration may occur with chronic excessive alcohol use. This well-known alcohol related "heartburn" is due to esophageal reflux with esophagitis that commonly occurs with irritation and inflammation of the gastroesophageal junction. Severe vomiting from alcohol gastritis may result in mucosal tears at the gastroesophageal junction, resulting in frank, usually transient pain in the upper gastrointestinal tract.

Short-term and long-term alcohol ingestion are associated with gastritis, erosive gastritis, gastric ulceration, atrophic gastritis, and gastric hemorrhage. Furthermore, duodenitis and duodenal ulcerations are a direct result of chronic excessive alcohol irritation and inflammation.

Patients who have undergone gastric bypass surgery for obesity have higher breath-alcohol levels after drinking the same amount as other people. Many bypass surgeries attach the jejunum directly to the stomach, allowing delivery of alcohol more rapidly to the jejunal site of primary absorption as well minimizing the effect of the stomach's alcohol dehydrogenase. Findings from a small study suggest that it takes much longer for their levels to return to zero [122].

CHRONIC PANCREATITIS

Alcohol consumption is the leading cause of chronic pancreatitis, accounting for approximately 70% of cases in the United States; however, fewer than 10% of heavy alcohol drinkers develop the disease [123; 124; 125; 126; 127]. While there are many theories regarding the pathophysiology of chronic pancreatitis, the most prevalent for alcohol-induced chronic pancreatitis involves the effect of toxic metabolites on the pancreas. This theory suggests that inflammation and fibrotic changes in the pancreas are the direct result of premature activation of enzymes due to ethanol's effect on the Golgi complex [125; 127; 128]. Another theory suggests that pancreatic hypoxia results from decreased blood flow to the pancreas. Alcohol-induced acinar injury may reduce capillary flow and result in edema and capillary compression [125]. Individuals with alcohol use disorder may develop diabetes mellitus or hyperglycemia as a result of chronic pancreatitis, when the islet cells in the pancreas are eventually destroyed. Once alcohol-induced chronic pancreatitis has developed, ingestion of even small amounts can result in severe flare-up requiring hospitalization.

BODY WEIGHT

Although alcohol has a relatively high caloric value, 7.1 calories per gram (1 gram of fat contains 9 calories), alcohol consumption does not necessarily result in increased body weight. Moderate, regular doses of alcohol added to the diets of lean men and women do not seem to lead to weight gain. However, in some studies obese patients have gained weight when alcohol is added to their diets.

An analysis of data collected from the first National Health and Nutrition Examination Survey (NHANES I) found that although drinkers had significantly higher intakes of total calories than nondrinkers, drinkers were not more obese than nondrinkers. In fact, women drinkers had significantly lower body weight than nondrinkers. As alcohol intake among men increased, their body weight decreased. An analysis of data from the second National Health and Nutrition Examination Survey (NHANES II) and other large U.S. studies found similar results for women [129]. When chronic heavy drinkers substitute alcohol for food in their diets, they typically lose weight and weigh less than their nondrinking counterparts [130].

Many older studies, such as those discussed, have focused on total volume of alcohol based on intake over time (e.g., number of drinks per week), an average that reveals little about the actual drinking habits of individuals. This has led to a very inconsistent array of data on the relationship of drinking and body mass index (BMI). One study sought a better understanding of the relationship between BMI and regular/moderate versus infrequent binge drinking [131].

Researchers found that although individuals of similar height might consume the same weekly average of alcohol (e.g., 14 drinks per week), individuals who consume two drinks each day of the week typically have low BMIs and individuals who consume seven drinks on each of two days of the week typically have high BMIs. A 2018 study examined the associations of alcoholic beverage consumption with dietary intake, waist circumference, and BMI [132]. A total of 7,436 men and 6,939 women 20 to 79 years of age were included in the study. By average daily drinking volume, the differences in waist circumference and BMI between former and moderate drinkers were +1.78 cm and +0.65, respectively, in men and +4.67 cm and +2.49, respectively, in women. Compared with moderate drinking, heavier drinking volume (three drinks/day or more in men, two drinks/day or more in women) was not associated with higher waist circumference or BMI, whereas drinking five or more drinks/day was associated with higher waist circumference and BMI in men. There were no significant differences in women who consumed four or more drinks/day compared with women who consumed one drink/day [132].

It is also important to note those individuals who have undergone bariatric surgery. According to a research study conducted at a substance abuse treatment facility, bariatric surgery patients were more likely to be diagnosed with alcohol withdrawal than those who had not had the surgery [133]. In another study of patients in active weight management being considered for bariatric surgery, an inverse relationship was found between BMI and alcohol consumption—the more overweight the patient, the less alcohol was consumed [134]. Past-year alcohol consumption actually decreased as BMI increased. Surgeons felt it rare to have a patient excluded for bariatric surgery due to excessive alcohol consumption. The authors concluded that it is likely that food and alcohol compete at brain reward sites.

MALNUTRITION

Excessive drinking may interfere with the absorption, digestion, metabolism, and utilization of nutrients, particularly vitamins. Individuals with alcohol use disorder often use alcohol as a source of calories to the exclusion of other food sources, which may also lead to a nutrient deficiency and malnutrition. In the late stage of the disease, patients may develop anorexia or severe loss of appetite, and refuse to eat. Persons with alcohol use disorder account for a significant proportion of patients hospitalized for malnutrition [130].

Direct toxic effects of alcohol on the small bowel causes a decrease in the absorption of water-soluble vitamins (e.g., thiamine, folate, B6). Studies have suggested that alcoholism is the most common cause of vitamin and trace-element deficiency in adults in the United States. Alcohol's effects are dose dependent and the result of malnutrition, malabsorption, and ethanol toxicity [135]. Vitamins A, C, D, E, K, and the B vitamins are deficient in some individuals with alcohol use disorder. All of these vitamins are involved in wound healing and cell maintenance. Because vitamin K is necessary for blood clotting, deficiencies can cause delayed clotting and result in excess bleeding. Vitamin A deficiency can be associated with night blindness, and vitamin D deficiency is associated with softening of the bones. Deficiencies of other vitamins involved in brain function can cause severe neurologic damage (e.g., deficiencies of folic acid, pyridoxine, thiamine, iron, zinc).

Thiamine deficiency from chronic heavy alcohol consumption can lead to devastating neurologic complications, including Wernicke-Korsakoff syndrome, cerebellar degeneration, dementia, and peripheral neuropathy [136]. Thiamine deficiency in patients with alcohol use disorder who are suffering from Wernicke-Korsakoff syndrome leads to lesions and increased microhemorrhages in the mammillary bodies, thalamus, and brainstem. This syndrome can also be associated with diseases of the gastrointestinal tract when there is inadequate thiamine absorption. All patients with alcohol use disorders should receive supplemental thiamine whenever entered into hospitalization or treatment to reduce this possibility.

INFECTIOUS DISEASES

Alcohol abuse is a major risk factor for many infectious diseases, especially pulmonary infections [137]. Studies have shown that alcohol abuse increases the risk for acute respiratory distress syndrome and chronic obstructive pulmonary disease [138; 139; 140; 141]. Pneumonia, tuberculosis, and other pulmonary infections are frequent causes of illness and death among patients with alcohol use disorder [142]. Other infectious diseases that are over-represented among individuals with alcohol use disorder are bacterial meningitis, peritonitis, and ascending cholangitis. Less serious infections are chronic sinusitis, pharyngitis, and other minor infections.

Acute and chronic alcohol abuse also increase the risk for aspiration pneumonia. Alcohol use disorders are associated with increased risk of aspiration of gastric acid and/or oropharyngeal flora, decreased mucus-facilitated clearance of bacterial pathogens from the upper airway, and impaired pulmonary host defenses [143]. In addition, pathogenic colonization of the oropharynx is more common in patients with alcohol use disorder.

The consumption of alcohol alters T-lymphocyte functions, immunoglobulin production by B cells, NK cell function, and neutrophil and macrophage activities making patients with alcohol use disorder more susceptible to septic infection [144; 145; 146]. Studies have shown that animals given ethanol are unable to suppress infections that can ultimately result in progressive organ damage and death [147; 148; 149].

SLEEP DISORDERS

Although some people believe that alcohol helps them sleep, chronic excessive drinking can induce sleep disorders by disrupting the sequence and duration of sleep states and by altering total sleep time, as well as the time required to fall asleep [150; 151]. Specifically, drinking within an hour of bedtime appears to disrupt the second half of the sleep period [152]. The person may sleep poorly during the second half of sleep, awakening from dreams and returning to sleep with difficulty, resulting in daytime fatigue and sleepiness [150; 153].

Individuals with alcohol use disorder may be at increased risk for sleep apnea, a disorder in which the upper air passage narrows or closes during sleep [154; 155; 156; 157]. The combination of alcohol, obstructive sleep apnea, and snoring increases a person's risk for heart attack, arrhythmia, stroke, and sudden death [158]. Obstructive sleep apnea significantly increases the risk of stroke or death from any cause, independent of other risk factors, including hypertension [159; 160].

NERVOUS SYSTEM DYSFUNCTION

The most common neurologic abnormality among patients with alcohol use disorder is dementia syndrome, which manifests primarily as impairment in recent memory, and more subtle fluctuations in abstractions, calculations, and other aspects of cognitive functions. As previously stated, one specific neurologic complication resulting from thiamine deficiency is Wernicke-Korsakoff syndrome, which involves delirium, clouded sensorium, confusion, ophthalmoplegia, nystagmus, and ataxia [161]. Immediate administration of thiamine is usually successful in treating the symptoms, but in some cases permanent memory loss occurs [161]. Once delirium and confusion resolve, there is sometimes a profound loss in recent memory (out of proportion to the other cognitive deficits) and alcoholic peripheral neuropathy, which results in diminished sensitivity to touch, pinprick, and vibration (objectively, and paraesthesias subjectively).

The acute effects of alcohol on the nervous system are signs people commonly think of when they envision an intoxicated person, such as slurred speech, loss of coordination, unsteady gait, impairment of attention or memory, nystagmus, stupor, or coma. The degree to which the central nervous system is impaired is directly proportional to the BAC and degree of tolerance.

Alcohol and the Brain

Alcohol affects most neurochemical systems including NMDA, GABA, serotonin, dopamine (DA), and opioid systems.

Alcohol inhibits NMDA systems, which may contribute to feeling intoxicated. NMDA receptors change as tolerance develops. These receptor systems are overactive during withdrawal. Alcohol also enhances the action of the GABA system, producing some of the symptoms of acute intoxication. GABA receptors are especially sensitive to alcohol. The GABA system is underactive during withdrawal, and the genes that control these receptors may have an impact on the risk of alcohol use disorder [162; 163].

Alcohol causes the release of 5-HT, or serotonin. Lower 5-HT levels in the brain are associated with increased alcohol intake in animals and humans, while higher 5-HT levels are associated with slightly reduced alcohol intake. Several 5-HT genes may be related to the genetic risk of alcohol use disorder [11; 44].

Alcohol activates DA in the reward system in the ventral tegmental area of the brain. Alcohol also causes the release of DA. Several DA receptors may be related to the genetic risk of alcohol use disorder [11; 44].

Finally, alcohol causes the release of endogenous opioids. Opioid receptors change with tolerance and withdrawal. Some receptors may affect genetic predisposition for alcohol use disorder, and opioid antagonists can decrease voluntary alcohol consumption. Alcohol may also affect acetylcholine, norepinephrine, and steroids.

Most people who drink do not develop brain damage. However, studies do indicate that impaired cognition and motor abilities occur in some individuals who are heavy drinkers. Older persons with alcohol use disorder exhibit more brain tissue loss than both older and younger persons without alcohol use disorder. These results suggest that aging may render a person more susceptible to the effects of chronic excessive alcohol. Most studies suggest that, following long-term abstinence, most brain changes resolve.

Magnetic resonance imaging has been used to measure changes in the brain structure and volume in persons with alcohol use disorder at three weeks after abstinence from alcohol [164]. The results indicated that the brain volume in men and women with alcohol use disorder was significantly reduced as compared with healthy men and women. The differences, however, were much more significant in women than in men [165]. These results indicate that alcohol inflicts greater neurotoxic effects in women with alcohol use disorder than men, but again, these brain changes may resolve with long-term abstinence.

COMPLICATIONS SPECIFIC TO WOMEN

Although the literature on gender differences in addiction can appear at times to be inconsistent, as a whole men are more substance dependent than women for all substances except benzodiazepines and analgesics, on which women are equally or more frequently dependent [166]. However, on average, women show the effects of alcohol more immediately, more intensely, and for longer periods of time than men. They achieve higher concentrations of alcohol in the blood after drinking the same amounts of alcohol [167].

Women also produce a lower level of the enzymes required to break down alcohol. In addition, female hormones make women's bodies more susceptible to alcohol at certain times of the menstrual cycle. Women also tend to be shorter and weigh less than men. Because women generally have a higher percentage of body fat, they reserve alcohol in the body for longer periods of time. This is important because when a person drinks a large amount of alcohol, it is deposited in fatty tissues. Neurophysiology is more compromised in women with alcohol use disorder than men [168].

It may be because of these factors that women develop alcohol problems more quickly than men, and their progression to severe complications, such as liver disease, is more rapid. The death rate among women with alcohol use disorder is 50% to 100% greater than that of men because of their increased risk for suicide, alcohol-related accidents, cirrhosis, and hepatitis [169]. It is important to note, however, that women are more likely than men to obtain help, participate in treatment, and have long-term involvement in AA, and therefore are more likely to have better life outcomes [170].

International studies of gender differences indicate that the greater the societal gender equality in a country, the smaller the gender differences in drinking behavior. The gender gap in alcohol drinking is one of the few universal gender differences in human social behavior [171].

Fetal Alcohol Spectrum Disorders

The dangers of drinking while pregnant are well-documented. Pregnant women who drink risk the chance of their child developing FASD. Prenatal alcohol exposure is known to be toxic to the developing fetus and is one of the leading known preventable causes of intellectual disability. Excess fetal mortality secondary to drinking is most prevalent during the first trimester of pregnancy. Even drinking as little as one beer a day has been associated with decreased birth weights and spontaneous abortions. Although FASD has received a great deal of publicity, the majority of people may not understand it correctly. For example, one large study of adults 18 to 44 years of age found that the majority of respondents incorrectly assumed that FAS referred to babies born with an addiction to alcohol.

The World Health Organization recommends that healthcare providers should offer a brief intervention to all pregnant women using alcohol. (https://www.who.int/publications/i/item/9789241548731. Last accessed May 10, 2021.)

Strength of Recommendation/Level of Evidence: Strong/Low

FASDs refer to the whole range of conditions that can affect the offspring of mothers who drank alcohol during pregnancy. These conditions can affect each person in different ways and can range from mild to severe. A person with an FASD might have [172]:

- Abnormal facial features, such as a smooth ridge between the nose and upper lip (the philtrum)
- Small head size
- Shorter-than-average height
- Low body weight
- Poor coordination
- Hyperactive behavior
- Difficulty with attention
- Poor memory
- Difficulty in school (especially with math)
- Learning disabilities
- Speech and language delays
- Intellectual disability or low IQ
- Poor reasoning and judgment skills
- Sleep and sucking problems as an infant
- Vision or hearing problems
- Problems with the heart, kidneys, or bones

There are a variety of conditions that are considered FASDs. Alcohol-related neurodevelopmental disorder (ARND) is associated with intellectual difficulties and problems with behavior and learning. Patients with ARND may do poorly in school, with particular issues with math, memory, attention, judgment, and impulse control [172]. Offspring of mothers who consumed alcohol, during pregnancy may also develop alcohol-related birth defects, including congenital malformations of the heart, kidneys, and/or bones or hearing problems.

The most commonly studied FASD is FAS. FAS is defined by the existence of certain physical characteristics of children whose mothers drank during pregnancy. These characteristics include [172]:

- Intellectual disability
- Growth deficiencies
- Central nervous system dysfunction
- Decreased brain size
- Low birth weight
- Distorted facial features
- Behavioral maladjustments
- Abnormal joints and limbs

Other less visible symptoms of FAS include [173; 174; 175; 176; 177; 178; 179; 180; 181; 182]:

- Verbal learning and memory problems
- Visual-spatial learning problems
- Attention deficits and hyperactivity
- Increased reaction time/slow information processing
- Executive function problems
- Structural and functional changes in the brain

Alcohol apoptotic neurodegeneration has been shown to appear in the forebrain when rats are injected with alcohol. Seven-day-old rats were divided into a group receiving saline solution and another group receiving alcohol solution. The brains were examined after 24 hours of ingesting alcohol or saline. The alcohol group showed a very dense, widely distributed area of deterioration (cell death). When alcohol is administered, various neurons in the forebrain show sensitivity. Also, the brain weight of the alcohol-treated rats was much lower than the saline group. Exposure of the developing rat brain to alcohol for a certain period of time during a specific developmental stage induces destruction of brain cells that deletes large numbers of neurons from several areas of the brain. This period of time in humans is the last three months of gestation [183].

Alcohol is especially neurotoxic to the developing fetus. Vulnerability is highest at six months' gestation to several years after birth. During this period, alcohol exposure can kill millions of neurons in the developing brain. This helps to explain reduced brain size and behavior disturbances associated with FAS. The most disabling effects are hyperactivity and learning disabilities, depression, and psychosis. Depending on the time of exposure to alcohol, different neurons are depleted, which shows evidence of alcohol being an agent that can contribute to many mental disabilities.

The Centers for Disease Control and Prevention (CDC) reported in 2020 that 11.3% of pregnant women 18 to 44 years of age used alcohol and 4.0% were binge drinkers [184]. According to the CDC, drinking while pregnant costs the United States $5.5 billion annually. Additionally, an estimated 6 to 9 out of 1,000 U.S. school children may have FASDs [172]. Binge drinking among pregnant women during the first trimester increased from 10.8% in 2015–2016 to 12.6% in 2019 [14]. FASD is 100% preventable when pregnant women abstain from drinking alcohol [172; 185].

EFFECTS ON FAMILIES

Living with a non-recovering family member with alcohol use disorder can contribute to stress for all members of the family. Children raised in these families have different life experiences than children raised in nonalcoholic families. For example, children living with a non-recovering alcoholic score lower on measures of family cohesion, intellectual cultural orientation, active recreational orientation, and independence. They also experience higher levels of conflict within the family. Many children of alcoholics experience other family members as distant and noncommunicative and may be hampered by their inability to grow in developmentally healthy ways. The level of dysfunction or resiliency of the nonalcoholic spouse is a key factor in the effects of problems impacting the children. Support groups, such as Children of Alcoholics, are available to help people deal with these issues.

Alcohol use disorder usually has strong negative effects on marital relationships. Separated and divorced men and women were three times as likely as married men and women to say they had been married to a person with alcohol use disorder or problem drinker. Almost two-thirds of separated and divorced women and almost one-half of separated or divorced men younger than 45 years of age have been exposed to alcohol use disorder in the family at some time. As of 2019, approximately 14.5 million Americans met the diagnostic criteria for alcohol abuse and dependence; this number represents a decline from 18.1 million Americans in 2002 [14].

Child Abuse

The majority of studies suggest an increased prevalence of alcohol use disorder among parents who abuse children. Existing research suggests that alcoholism is more strongly related to child abuse than are other disorders, such as parental depression, but the most important factor is whether the abusive parent was abused themselves or witnessed a parent or sibling being abused. Although several studies report very high rates of alcoholism among the parents of incest victims, much additional research in this area is needed [186; 187].

VIOLENCE

Among some individuals and subgroups, excess alcohol consumption is associated with the risk of violent behavior. Alcohol may encourage aggression or violence by disrupting normal brain function, especially in levels of serotonin [188]. There is considerable overlap among nerve cell pathways in the brain that regulate aspects of aggression, sexual behavior, and alcohol consumption. Alcohol may weaken brain mechanisms that normally restrain impulsive behaviors, including inappropriate aggression.

Drinking and violence may occur together by chance. Also, violent criminals who drink heavily are more likely to be caught and consequently are over-represented in samples of people arrested for violent behavior. Antisocial personality disorder (ASPD) and early-onset alcoholism are common traits in many criminals. A person who intends to engage in a violent act may drink to bolster his or her courage or in hopes of evading punishment or censure. The motive of drinking to avoid censure is encouraged by the popular view of intoxication as a "time-out," during which a person is not subject to the same rules of conduct as when sober. Such alcohol-violence interactions are not readily treated. How-

ever, ongoing research has identified medications that have the potential to reduce violent behavior in both alcoholic and nonalcoholic subjects.

Young men who exhibit violent and antisocial behaviors often "burn out" with age [189]. By the time they reach 40 years of age, serotonin concentrations are increasing and testosterone concentrations are decreasing, both of which help to restrain violent behavior [190].

Research suggests that increasing the unit price of alcohol by raising alcohol taxes is an effective strategy for reducing excessive alcohol consumption and related harms, including violent behavior [191]. An examination of the impact of the price of alcoholic beverages on violence and other delinquent behavior among college students found that an increase in the price of beer could reduce the overall number of students involved in some sort of violent behavior by 4% [192]. In a study that used data from the National Household Survey on Drug Abuse, higher taxes on beer led to significant reductions in crime (e.g., property damage, use of force), with the largest impact among individuals younger than 21 years of age [193]. Another study that examined the impact of tax increases and advertising bans on reducing the prevalence of underage drinking and subsequent alcohol-related harms found both interventions to be effective [194]. A literature review of studies of underage populations found that increased taxes were significantly associated with reduced consumption and alcohol-related harms [195]. Public policies that affect the price of alcohol appear to have significant effects on alcohol-related disease and injury rates. The results of one systematic review suggest that doubling the tax on alcoholic beverages could reduce alcohol-related violence by 2% and crime by 1.4% [196].

According to the National Council on Alcoholism and Drug Dependence, on college campuses each year an estimated 696,000 students 18 to 24 years of age are assaulted by another student who has been drinking, and 97,000 students report experiencing alcohol-related sexual assault or date rape [197]. Four out of every five juvenile and teen arrestees are under the influence of alcohol or drugs while committing their crimes, test positive for drugs, are arrested for committing an alcohol- or drug-related offense, admit having substance abuse problems, or share some combination of these characteristics [198].

TRAFFIC ACCIDENTS

In 2019, 10,142 people died in alcohol-related traffic fatalities, accounting for 28% of all traffic-related deaths in the United States [199]. Of the 1,233 traffic fatalities that year among children 0 to 14 years of age, 214 (17%) involved an alcohol-impaired driver [200]. Of the 111 million self-reported episodes of alcohol-impaired driving among U.S. adults, nearly 1.1 million drivers were arrested for driving under the influence [200]. The CDC estimates that 29 people in the United States die in alcohol-related crashes every day [200]. In a study of persons who have been convicted of driving while impaired, 85% of women and 91% of men reported a lifetime alcohol use disorder [201]. Psychiatric comorbidity may be a key element distinguishing driving under the influence (DUI) offenders from others and in distinguishing repeat offenders from first-time offenders [202].

A study found that although marijuana's effects on driving performance were small or moderate when taken alone, the effects were severe when combined with even a low dose of alcohol. These findings are very serious considering the frequency with which these two substances are combined, especially in young inexperienced drivers [203; 204; 205; 206; 207].

OTHER PSYCHIATRIC DISORDERS ASSOCIATED WITH ALCOHOL USE DISORDERS

Persons with alcohol use disorder, like other addicts, generally have comorbid disorders, meaning they have alcohol problems as well as other illnesses or conditions [208]. These problems may include personality disorders (formerly Axis II disorders), other drug use (especially tobacco use disorders), or a number of psychiatric disorders, from major depression and bipolar illness to eating disorders and anxiety disorders. One study reported that 50% of women and 33% of males with a history of alcohol use disorders have at least one other psychiatric disorder [201]. Treatment of the comorbid disorder is absolutely essential in preventing relapses to drinking and in preventing other adverse consequences, such as suicide among patients with depression and alcohol use disorder.

DEPRESSIVE DISORDERS

Alcohol is both a stimulant and a depressant, depending on the levels and time after drinking. Patients with alcohol use disorder are often misdiagnosed with depression because of the many symptoms that mimic depression. Insomnia, reduced appetite, and decreased energy are just a few of the symptoms that can occur in both diseases. Alcohol can cause temporary depressive symptoms, even in persons who have no history of depression. In fact, as many as 80% of men and women with alcohol use disorder complain of depressive symptoms, and at least one-third meet the criteria for a major depressive disorder (excluding, of course, criterion D) [209]. Depression is often a comorbid disorder but can also be solely or partially due to alcohol. This carries important implications in the way depressive symptoms are evaluated and treated in patients with alcohol use disorders. Alcohol intoxication, especially binge drinking, can also cause mood swings that mimic the "highs" of people with manic depression/bipolar disorder. Thirty to fifty percent of persons with alcohol use disorder suffer from major depression at the same time [209; 210].

How alcohol use disorder is related to depression is not clear. Some studies have suggested that both conditions may share common risk factors. For example, both problems may run in families. Co-occurrence is very common, but likely has independent though inter-related etiology.

Treatment professionals have found that after two to three weeks of abstinence from alcohol and with good nutrition, the temporary depressive effects of alcohol dissipate. However, there are subgroups of individuals with alcohol use disorder who have a co-occurring depression or manic depression, and it is critically important to diagnose and treat these illnesses during alcohol treatment. If true co-occurring depression is left untreated, many patients will drop out of treatment and relapse to drinking. Alcohol use disorders and depression are important risk factors for suicidal thinking or actions. Because alcohol can increase impulsivity and make depression worse, even intolerable, alcohol is often a factor in suicides.

Suicide

Suicide is the 10th leading cause of death overall and the 2nd leading cause among persons 15 to 34 years of age [211; 212]. Most people who attempt suicide and 90% of suicide victims have a diagnosable psychiatric disorder [212]. Alcohol is the number one drug of abuse associated with suicide. In 2019, 47,511 people in the United States committed suicide and an estimated 1.2 million attempted suicide [211]. Among people who attempt suicide, alcohol use disorder is a common diagnosis. Major depression and alcohol use disorder, respectively, are the most commonly diagnosed psychiatric disorders in patients who commit suicide. Next to age, alcohol and drug addictions are the second most important risk factors in suicide. As many as 85% of individuals who commit suicide suffer from depression or alcohol use disorder, and 70% of patients with comorbid alcohol use disorder and depression report that they have made a suicide attempt at some point in their lives [213]. The reported likelihood of suicide in diagnosed alcoholism is between 60 and 120 times that of persons without mental illness [214].

Alcohol intoxication can exaggerate depression and increase the likelihood of an impulsive act like suicide or other forms of violence. Alcohol use is frequently detected in suicide methods involving firearms, driving a vehicle, or overdosing. Alcohol impairs judgment and lowers the threshold to commit suicide, explaining its association with suicide methods that involve a high level of pain [215]. In a case-control study, researchers examined the relationship between near fatal suicide attempts and aspects of alcohol consumption, such as amount and frequency of drinking, alcoholism, binge drinking, and drinking within three hours of a suicide attempt, and found a J-shaped relationship between alcohol exposure and near lethal attempts for all measures [216].

In a comprehensive review of the subject, it is estimated that the lifetime suicide risk among individuals with alcohol use disorder is 10% to 15%, a figure 5 to 10 times greater than seen in the general population [215; 217]. Between 15% and 20% of persons with alcohol use disorder will attempt suicide, and of those who have attempted in the past, 15% to 20% will attempt suicide again in the next five years [217]. Approximately 40% of all patients seeking treatment for alcohol use disorder report at least one suicide attempt at some point in their lives [215].

One study conducted in Japan showed that, among drinkers, the risk of suicide increased with the amount of alcohol consumed. An unusual finding of this study was a U-shaped relationship between alcohol and suicide. Abstainers also have a significantly increased risk, similar to heavy drinkers. Among middle-aged males, moderate drinkers had the lowest risk for suicide [218].

In order to be most effective at the prevention of suicide, healthcare providers should be adept at eliciting both a substance use history and a psychiatric history. Risk factors associated with completed suicide with alcohol use disorder include comorbid major depression, active drinking, serious medical illness, living alone, and interpersonal loss and conflict.

Treatment of Patients with Comorbid Depression and Alcohol Use Disorder

Male, alcoholic, and depressed are the most common descriptors for suicide attempters. Always evaluate persons with alcohol use disorder for depression, suicide, and appropriate referral to a psychiatrist or psychologist. Depression and alcohol use disorder are common problems in the United States. Both are at the top of the list of problems that commonly require psychiatric treatment. Unfortunately, both problems are difficult to diagnose by physicians due to patient fears and stigma and the realities of a busy medical office. Treating one problem but not the other is also very common. In order to successfully treat alcohol use disorder and depression it is important that healthcare providers diagnose and treat both problems.

Treatment of alcohol use disorder begins with evaluation, stabilization, and detoxification and the appropriate level of treatment, which may include a 12-step program. Adding an antidepressant and treating the depression requires a number of subtle changes in thinking. First, the physician must be convinced that the depression is not transient and related to alcohol or detoxification or so severe that the patient is unable to do treatment work. Next, the patient must be willing to accept and adhere to simultaneous, coordinated treatment.

The next issue is determining which antidepressant to use. Lithium and tricyclics used to treat depression alone may not be effective or could have serious adverse effects when used in patients with comorbid depression and alcohol use disorder. Another class of antidepressants, selective serotonin reuptake inhibitors (SSRIs), has been studied to treat depression after failing to treat alcohol use disorder. SSRIs

generally cause less serious adverse effects than tricyclics, but some, like fluoxetine, work slowly and cause sexual performance side effects. SSRIs, such as fluoxetine, sertraline, and paroxetine, and herbal remedies such as St. John's wort have been tried in a variety of studies and are generally able to help alleviate depression, but do not appear to help with drinking outcomes. Venlafaxine and bupropion appear to be especially effective in treating patients with depression and alcohol use disorder. Venlafaxine is well suited to treat alcohol use disorder with depression and even depression with anxiety [219]. Venlafaxine is effective in mild and severe depression with anhedonia. Bupropion is effective as well, but it has seizure risks in this population [220]. Men with depression who are using alcohol appear very sensitive to the sexual side effects of the SSRIs and may discontinue their use and drop out of treatment. Patients with major depression and alcohol use disorder are generally treated with venlafaxine and, when necessary, are augmented with bupropion or mirtazapine. Transcranial magnetic stimulation is now available for refractory depression, and studies are in progress for its use in treating substance use disorder [221].

BIPOLAR DISORDER

A 2000 study analyzed the substance/alcohol abuse patterns of 89 patients with a confirmed diagnosis of bipolar disorder (71 with bipolar I and 18 with bipolar II) [222]. The diagnosis was confirmed by a structured clinical interview for DSM-IV Axis I, an attending psychiatrist, a medical records review, and family members. The age of the patients ranged from 18 to 65 years. Among those with bipolar disorder I, 41 patients (57.8%) abused or were dependent on one or more substances (including alcohol), 28.2% abused or were dependent on two substances, and 11.3% abused or were dependent on three or more substances. Among those with bipolar disorder II, 39% of patients abused or were dependent on one or more substances, 17% were dependent on two or more substances, and 11% were dependent on three or more substances. The risk for substance or alcohol abuse was higher among patients with bipolar I disorder than with bipolar disorder II. Patients with both bipolar disorders I and II abused alcohol more often than any other substances [222].

ANXIETY

Alcohol withdrawal causes many of the signs and symptoms of anxiety and can even mimic panic attacks. Alcohol works much like a benzodiazepine; many people who abuse and are dependent on alcohol have learned to drink to temporarily relieve anxious feelings.

Special problems exist for people who drink to self-medicate the symptoms of a true generalized anxiety disorder, social phobia, or panic disorder. Alcohol may provide temporary relief, but it is not a good treatment for shyness or an anxiety disorder. The price a person may pay for self-medication are two diseases: anxiety and alcohol use disorder. Social anxiety can be a major impediment to active participation and even attendance to group therapy and 12-step meetings.

PAIN

Pain is a subjective experience, and the perception of being in pain is an important factor of the alcohol use disorder. It is hypothesized, as well as established in some research, that individuals in pain will drink as a means to decrease their perception of pain or as a reaction to painful stimuli [223]. According to the National Institute on Alcohol Abuse and Alcoholism, an estimated one in four adults in chronic pain reports self-medicating with alcohol and 43% to 73% of people with alcohol use disorder report experiencing chronic pain [224].

ABUSE/DEPENDENCE ON OTHER DRUGS

All drugs of abuse, including alcohol, cause dopamine release in the mesolimbic system in the brain. This dopamine system, sometimes referred to as the neuroanatomy of pleasure or reinforcement, starts in the ventral tegmental area and projects to the nucleus accumbens. Alcohol- or drug-taking results in a dopamine reward that stimulates its taking. Pavlovian conditioning to environmental cues (e.g., sights, smells, and sounds of a bar) that precede use become associated with use of the drug. Notably, this sense of "reward," which confers evolutionary fitness, is more likely to be perceived as crucial than even that produced by natural, survival-oriented stimuli (e.g., food, sex). This conditioning is reflective of synaptic strengthening mediated by the glutamatergic system, with neuroplasticity changes in brain areas thought to mediate drug-taking behavior, including the amygdala (stress and anxiety), hippocampus (memory), and dorsal striatum (routine motor movements). Natural stimuli (e.g., food, sex, other previously pleasurable activities) become less enjoyable, resulting in a profound state of anhedonia. With time, alcohol use disorders become ingrained. Ultimately, this preference for alcohol compared to natural rewards is mediated through a process of "bad learning," or neuroplasticity changes in the extended amygdala, also referred to as the antireward system. The anti-reward system involves stress-response hormones, including corticotrophin-releasing hormone and dynorphin. Long- or short-term abstinence activates the antireward system, and with more abstinence, it becomes even more difficult to ignore with the attendant anxiety, dysphoria, craving, and anhedonia. Over time, with repeated administration, nucleus accumbens dopamine receptors desensitize, leading to a functional decrease in available dopamine, anhedonia, and decreased sense of pleasure. Real-world examples include an individual with alcohol dependence developing a sudden craving for a drink when watching a beer commercial, walking by a bar, or seeing a place where s/he drinks. This stage reveals one of the remarkable properties of addiction; the act of drug-taking transitions from being impulsive (i.e., pleasure-seeking without afterthought) to compulsive (i.e., undertaken to relieve stress, tension, or physical signs such as pain).

Alcohol use disorders are often associated with dependence on or abuse of other substances, such as marijuana, cocaine, opioids, amphetamines, anxiolytics, designer or "club drugs," and tobacco. Alcohol may be used to alleviate the unwanted effects of these other substances or to augment their effects or substitute for them when they are not available.

Cocaine

According to the most recent National Survey on Drug Use and Health, about 5.5 million Americans 12 years of age and older were past year cocaine users in 2019 [14]. Many cocaine addicts also use alcohol to enhance euphoria, to reduce the mania associated with intoxication, or to calm or reduce the impact of dysphoria caused by cocaine withdrawal. Use of cocaine impairs both mental and physical functions, including learning and memory, hearing and seeing, motor coordination, speed of information processing, and problem-solving ability. Alcohol use has its own set of impairments, but many overlap with cocaine use. The negative impact exerted by alcohol and cocaine on either mental or physical activities has been found to be greater than when either is used alone. This is due to the production of a compound called cocaethylene. Cocaethylene is a novel compound that is produced in the bodies of individuals using cocaine and alcohol. Cocaethylene has been linked to cardiotoxicity, neurotoxicity, overdose deaths, and acute functional impairment [225; 226]. The combination of cocaine and alcohol may be associated with other neurologic changes, including poor memory and poorer judgment. Alcohol use can also be a trigger for cocaine relapse.

Nicotine Addiction

As many as 50% of persons with alcohol use disorder smoke, compared with about 18% of the general population [14; 227]. In a cohort study of 845 persons who had been treated for alcohol use disorder, more than 25% of the sample had died within 12 years [228]. Approximately one-half of the deaths were related to tobacco use and one-third were related to alcohol. Smoking and excessive alcohol use are risk factors for cardiovascular and lung diseases and some forms of cancer. Compared to nonsmoking nondrinkers, the risk for developing mouth and throat cancer is seven times greater for those who use tobacco, six times greater for those who use alcohol, and 300 times greater for those who use both tobacco and alcohol [229].

Both nicotine and alcohol consumption cause the release of dopamine in the nucleus accumbens. Neurobiology may make the combination of the two substances more rewarding than if either substance was taken alone. Certain enzymes in the liver (i.e., microsomal enzymes) convert some of the ingredients found in tar from cigarette smoke into chemicals that can cause cancer [230]. Long-term excessive alcohol consumption may activate these enzymes as well as decrease the body's ability to respond to infections or abnormal states. Smoking and excessive alcohol use are significant risk factors for cancer of the mouth, throat, and esophagus [229].

A 2000 study has revealed that people who smoke, drink alcohol (one or more drinks per day) and develop non-small cell lung cancer had more mutations in the *p53* gene when compared to those who smoked only or did not smoke or drink [231]. Mutations in the *p53* gene have been seen in smoking-associated tumors and were present more often in alcohol drinkers who smoked cigarettes, than in nondrinkers who smoked cigarettes or in nondrinkers who did not smoke. Seventy-six percent of patients who consumed one or more alcoholic drinks per day and smoked were found to have mutations in the *p53* gene. In contrast, 42% of smokers who did not drink (consuming less than one drink per day) had gene mutations [231].

A 2006 study sought to determine how nicotine delivered by tobacco smoke influences alcohol intake. Findings suggest that smoking increases alcohol consumption in at least a subset of smokers [232]. Animal studies have found that chronic nicotine use leads to escalation of alcohol self-administration through a dysregulation in opioid signaling [233; 234].

One of the major barriers to treating tobacco dependence in patients with a co-occurring alcohol use disorder is the notion that it is too difficult to quit both alcohol and tobacco and that attempts to quit tobacco might adversely affect the patient's recovery from alcoholism [235; 236]. Treatment facilities often concentrate on the "primary" addiction to alcohol and treat tobacco use as a more benign addiction. Fewer than 1 in 10 treatment facilities ban tobacco use on their grounds and many treatment facilities do not screen for or treat tobacco dependence [237]. Moreover, many treatment facilities enable patient smoking by adjourning meetings for "smoke breaks" and allowing staff to smoke openly with patients [238]. In fact, studies show that quitting smoking does not cause abstinent alcoholics to relapse and may actually decrease the likelihood of relapse [239]. Further, quitting smoking has been found to facilitate drinking cessation among tobacco and alcohol co-users [240].

EATING DISORDERS

Alcohol use disorder and eating disorders are commonly comorbid conditions, with patterns of comorbidity differing by eating disorder subtype [241]. A community-based sample of women found that those with lifetime alcohol use disorder or nicotine dependence were at higher risk for eating disorders [242]. The process of alcohol detoxification and treatment is often accompanied by overeating with weight gain, and in some cases food becomes a replacement for alcohol [134; 243].

PATHOLOGIC GAMBLING

As lotteries proliferate and states legalize casino gambling, pathologic or compulsive gambling is being recognized as a major public health problem. Alcohol use disorder is often a comorbid condition among compulsive gamblers. As with depression, each disorder can make the other more serious. Individuals with alcohol use disorder may bet more money and may be reluctant to quit chasing their losses. In one study, subjects received either three alcoholic drinks or an equal volume of a nonalcoholic beverage (placebo) [244]. The alcohol group persisted for twice as many gaming trials as the placebo group. One-half of the alcohol group lost their entire cash stake, compared with 15% of the placebo group [244].

Another study examined how alcohol affects judgment and decision-making during gambling, with a focus on sequential decision-making, including the gambler's fallacy (i.e., thinking that a certain event is more or less likely, given a previous series of events) [245]. Thirty-eight male participants completed a roulette-based gambling task 20 minutes after receiving either an alcoholic or placebo beverage. The task measured color choice decisions (red/black) and bet size, in response to varying lengths of color runs and winning/losing streaks. Color choice affected run length in line with the gambler's fallacy, which further varied by previous wins or losses. Bet size increased particularly for losing streaks. The alcohol group placed higher bets following losses than did the placebo group [245].

SEXUAL DYSFUNCTION

Alcohol metabolism alters the balance of reproductive hormones in men and women. In men, alcohol can impair the synthesis of testosterone and reduce sperm production. In women, chronic excessive alcohol use may cause a decreased interest in sex.

DETECTING ALCOHOL USE DISORDERS

Problem drinking described as severe is given the medical diagnosis of alcohol use disorder. An estimated 14.4 million adults 18 years of age and older in the United States have an AUD, including 9.2 million men and 5.3 million women. In addition, an estimated 401,000 adolescents 12 to 17 years of age had an alcohol use disorder [355].

AUD is a chronic relapsing addiction previously called alcoholism and characterized by an impaired ability to stop or control alcohol use despite adverse social, occupational, or health consequences. To be diagnosed with alcohol use disorder, individuals must meet the specific DSM criteria. Using the DSM-5, anyone meeting any 2 of the 11 criteria during the same 12-month period receives a diagnosis of alcohol use disorder. The severity of the disorder—mild, moderate, or severe—is assigned based on the number of criteria met.

RECOMMENDED STANDARDIZED QUESTIONS OR TESTS

A variety of screening instruments are available to detect unhealthy alcohol use in adults. After conducting a systematic evidence review of trials published between 1985 and 2011 on screening and behavioral counseling interventions for unhealthy alcohol use in adults, the U.S. Preventive Services Task Force (USPSTF) recommends that clinicians screen all patients 18 years of age or older for alcohol abuse using one of the following tools [246; 247]:

- The abbreviated three-question AUDIT-Consumption (AUDIT-C)
- The NIAAA-recommended Single Alcohol Screening Question (SASQ)

The USPSTF concludes that there is insufficient evidence to determine the benefits and harms of screening for unhealthy alcohol use in adolescents 12 to 17 years of age [246].

For patients in general medical and mental healthcare settings, Veterans Affairs recommends screening for unhealthy alcohol use annually using the three-item Alcohol Use Disorders Identification Test-Consumption (AUDIT-C) or Single-Item Alcohol Screening Questionnaire (SASQ).

(https://www.healthquality.va.gov/guidelines/mh/sud. Last accessed May 10, 2021.)

Strength of Recommendation: Strong for

The three questions on the Alcohol Use Disorders Identification Test-Concise (AUDIT-C) inquire about frequency of alcohol use, typical amount of alcohol use, and occasions of heavy use. The test takes one to two minutes to administer. Preliminary evidence suggests that the USAUDIT-C (based on U.S. standards) may be more valuable in identifying at-risk college drinkers [248]. In contrast, the SASQ inquires about past-year alcohol use and takes less than one minute to administer [246].

The CAGE questionnaire is the best known and most often studied screening tool used to detect alcohol problems. In an office setting, the four CAGE questions are often used to detect alcohol problems [249]. The first question, "Have you ever felt the need to cut down on your drinking?" is an easy question to ask. It is not threatening and at the same time suggests to the patient that you understand their pathologic attachment to alcohol [249]. A positive answer to the first and second questions strongly suggests further evaluation and brief intervention [246]. However, by itself, the CAGE questionnaire is not an adequate screening for alcohol use problems; it should trigger more intensive screening if positive [250].

CAGE Questionnaire

Ask current drinkers the CAGE questions:

1. Have you ever felt that you should **cut down** on your drinking?
2. Have people **annoyed** you by criticizing your drinking?
3. Have you ever felt bad or **guilty** about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover **(eye opener)**?

If there is a positive response to any of these questions:

- Ask if this occurred during the past year.

A patient may be at risk for alcohol-related problems if:

- Alcohol consumption is:

  Men:

  >14 drinks per week or

  >4 drinks per occasion

  Women:

  >7 drinks per week or

  >3 drinks per occasion

Or

- One or more positive responses to the CAGE that have occurred in the past year

When is screening for alcohol problems appropriate?

- As part of a routine health examination
- Before prescribing a medication that interacts with alcohol
- In response to presenting problems that may be alcohol related

One "yes" response to the CAGE questionnaire suggests an alcohol use problem. More than one "yes" is a strong indication that a problem exists [250; 251].

AUDIT Questionnaire

If a patient is CAGE positive, or if clinical suspicion remains high, the AUDIT questionnaire may be administered and can be extremely useful in detecting alcohol problems [252]. The AUDIT was developed by the WHO to identify persons whose alcohol consumption has become problematic to their health [253]. Research has shown that the AUDIT may be especially useful when screening women and minorities and has shown promise when tested in adolescents and young adults [254]. The AUDIT consists of 10 screening questions with three questions about the frequency and amount of drinking, three about dependence, and four questions about problems caused by alcohol [246; 249; 255].

1. How often do you have a drink containing alcohol?

   0 Never

   1 Monthly or less

   2 2 to 4 times a month

   3 2 to 3 times a week

   4 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

   0 1 or 2

   1 3 or 4

   2 5 or 6

   3 7 or 8

   4 10 or more

3. How often do you have 6 or more drinks on one occasion?

   0 Never

   1 Less than monthly

   2 Monthly

   3 Weekly

   4 Daily or almost daily

4. How often during the past year have you found that you were not able to stop drinking once you had started?

   0 Never

   1 Less than monthly

   2 Monthly

   3 Weekly

   4 Daily or almost daily

5. How often during the past year have you failed to do what was normally expected from you because of drinking?

   0 Never

   1 Less than monthly

   2 Monthly

   3 Weekly

   4 Daily or almost daily

6. How often during the past year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

   0 Never

   1 Less than monthly

   2 Monthly

   3 Weekly

   4 Daily or almost daily

7. How often during the past year have you had a feeling of guilt or remorse after drinking?
   0 Never
   1 Less than monthly
   2 Monthly
   3 Weekly
   4 Daily or almost daily
8. How often during the past year have you been unable to remember what happened the night before because you had been drinking?
   0 Never
   1 Less than monthly
   2 Monthly
   3 Weekly
   4 Daily or almost daily
9. Have you or someone else been injured as a result of your drinking?
   0 No
   2 Yes, but not in the past year
   4 Yes, during the past year
10. Has a relative or friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?
    0 No
    2 Yes, but not in the past year
    4 Yes, during the past year

The minimum score is 0 and the maximum possible score is 40. A score of 8 or more indicates a strong likelihood of hazardous or harmful alcohol consumption [195].

AUDIT-C Questionnaire

The AUDIT-C is a 3-question screening tool that can help identify persons who are at-risk drinkers (who may not be alcohol dependent) or who have active alcohol use disorders, including alcohol abuse or dependence [256].

1. How often do you have a drink containing alcohol?
   0 Never
   1 Monthly or less
   2 2 to 4 times a month
   3 2 to 3 times a week
   4 4 or more times a week
2. How many standard drinks containing alcohol do you have on a typical day?
   0 1 or 2
   1 3 or 4
   2 5 or 6
   3 7 or 8
   4 10 or more
3. How often do you have six or more drinks on one occasion?
   0 Never
   1 Less than monthly
   2 Monthly
   3 Weekly

A score of 4 or more in men and 3 or more in women (when not all points are from question 1) is considered positive for hazardous drinking or alcohol use disorder [256].

Single Alcohol Screening Question (SASQ)

The SASQ consists of one question: "How many times in the past year have you had X or more drinks in a day?" [246]. The question is individualized based on sex, with X being five for men and four for women. A response of more than one is considered positive and requires additional assessment.

ADDITIONAL STANDARDIZED QUESTIONS OR TESTS

Michigan Alcohol Screening Test (MAST)

The Michigan Alcohol Screening Test (MAST) continues to be a good screening test for alcohol abuse and dependence, but for optimal results it should be used with a questionnaire that asks about the amount and frequency of alcohol consumption. The following questions are from the 13-item Short MAST (SMAST) regarding the respondent's involvement with alcohol during the past 12 months [249]:

1. Do you think you are a normal drinker? (By normal we mean you drink less than or as much as most other people.)
   No = 1 Yes = 0
2. Does your wife, husband, a parent, or other near relative ever worry or complain about your drinking?
   No = 0 Yes = 1
3. Do you feel guilty about your drinking?
   No = 0 Yes = 1
4. Do friends or relatives think you are a normal drinker?
   No = 1 Yes = 0
5. Are you able to stop drinking when you want to?
   No = 1 Yes = 0

6. Have you ever attended a meeting of Alcoholics Anonymous?

   No = 0 Yes = 1

7. Has drinking ever created problems between you and your wife, husband, a parent, or other near relative?

   No = 0 Yes = 1

8. Have you ever gotten into trouble at work because of your drinking?

   No = 0 Yes = 1

9. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking?

   No = 0 Yes = 1

10. Have you ever gone to anyone for help about your drinking?

    No = 0 Yes = 1

11. Have you ever been in a hospital because of drinking?

    No = 0 Yes = 1

12. Have you ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages?

    No = 0 Yes = 1

13. Have you ever been arrested, even for a few hours, because of drunken behavior?

    No = 0 Yes = 1

Key: There are two definitions for this test.

1. Seltzer Definition:
   a. 0-1 points = Nonalcoholic
   b. 2 points = Possibly alcoholic
   c. 3 or "yes" to 6, 10, or 11 = Alcoholic
2. Ross Definition:
   5 points = Alcohol abuse

Comorbidity-Alcohol Risk Evaluation Tool (CARET)

There are certain risks and comorbidities (e.g., psychiatric and medical conditions requiring pharmacologic treatment) that may modify the criteria of at-risk drinking, especially within the geriatric population [257]. It is important for healthcare providers to assess each patient's threshold for alcohol use, taking into account their level of risk and comorbidities. The Comorbidity-Alcohol Risk Evaluation Tool (CARET) may be helpful in this task, with comorbidity-specific measures to place patients in "at-risk" or "not-at-risk" groups [258].

SCREENING FOR ALCOHOL ABUSE IN NON-ENGLISH-PROFICIENT PATIENTS

Communication with patients regarding history and current alcohol use patterns is a necessary step in determining if alcohol use has become a problem. When there is an obvious disconnect in the communication process between the practitioner and patient due to the patient's lack of proficiency in the English language, an interpreter is required. Frequently, this may be easier said than done, as there may be institutional and/or patient barriers.

If an interpreter is required, the practitioner should acknowledge that an interpreter is more than a body serving as a vehicle to transmit information verbatim from one party to another. Instead, the interpreter should be regarded as part of a collaborative team, bringing to the table a specific set of skills and expertise [259]. Several important guidelines should be adhered to in order to foster a beneficial working relationship and a positive atmosphere.

When interpreters are enlisted and treated as part of the interdisciplinary clinical team, they serve as cultural brokers, who ultimately enhance the clinical encounter. When providing care for patients for whom English is a second language, the consideration of the use of an interpreter and/or patient education materials in their native language may improve patient understanding and outcomes.

In addition, several organizations provide information and toolkits in languages other than English. The National Hispanic Medical Association offers an alcohol screening kit in Spanish, including patient education sheets [260]. The National Institute on Alcohol Abuse and Alcoholism also provides patient education brochures and pamphlets in English and Spanish [261].

LABORATORY TESTS

The FDA has approved a test to detect alcohol use disorder and alcohol-related diseases. The test detects the level of carbohydrate-deficient transferrin (CDT) in the body, which is elevated in persons with alcohol use disorder and remains elevated even several weeks after drinking is stopped [262]. The advantages of the CDT test are reliability and the availability of automated test results within four hours [263; 264]. The CDT is often used in combination with other screening tests, such as the gamma-glutamyl transferase (GGT) test. While both CDT and GGT are independently associated with alcohol abuse, combining tests may dramatically increase sensitivity [250; 265]. CDT is less sensitive/specific in women than in men [250].

Tests for Recent Alcohol Use (Hours)

The relationship between alcohol and the liver serves as the basis for many of the tests that identify possible alcohol abusers. Alcohol markers for recent alcohol ingestion include urine/breath/blood, AlcoPatch, methanol, urinary

LABORATORY MARKERS FOR ALCOHOL USE		
Markers	**Sensitivity**	**Specificity**
Men		
CDT	73%	96%
GGT	65%	89%
CDT with GGT	90%	84%
Women		
CDT	52%	94%
GGT	54%	97%
CDT with GGT	76%	91%

Source: [267] *Table 1*

ethyl glucuronide (EtG) and ethyl sulfate(ES), whole blood phosphatidylethanol, and the ratio of 5-hydroxytryptophol (5-HTOL) to 5-hydroxyindole-3-acetic acid (5-HIAA) [250; 266].

Tests for Less Recent Alcohol Use (Weeks)

The CDT test is often used to assess prolonged ingestion of high amounts of alcohol (more than 50–80 g/day for two to three weeks) [250]. Another test examines hemoglobin or whole blood acetaldehyde adducts. In a study of almost 3,000 women and 4,000 men, the combination of CDT and GGT compared with either alone shows a higher diagnostic sensitivity and specificity and is correlated more strongly with alcohol consumption than either test alone (***Table 1***) [267; 268; 269].

Tests for Chronic Alcohol Use (Years)

Tests in this category look at the classic toxic markers that use of alcohol leaves on the body. They include [250]:

- Liver function tests
- GGT
- Aspartate aminotransferase (AST)
- Alanine aminotransferase (ALT)
- Red blood cell index
- Mean corpuscular volume (MCV)

BRIEF INTERVENTION

Despite the fact that alcohol abuse complications have caused grave illness and many deaths, physicians are not always good at detecting alcohol and other drug abuse in their patients. Even when physicians and other health professionals identify an individual with alcohol use disorder, they are sometimes unsure of how to proceed. At times, the physician will offer help but the patient refuses. Nevertheless, the addiction specialist or the primary care physician with a continuous, comprehensive, patient-centered approach to the medical, psychosocial, and family issues is the ideal person to offer intervention, treatment, and recovery support.

Almost 20% of patients treated in a primary care setting drink at levels that may place them at risk for developing alcohol-related problems [250; 270]. Brief intervention, as part of primary healthcare, can help reduce this risk. Brief intervention is generally conducted over one to a few visits with each session lasting from just a few minutes up to one hour. The type of brief intervention varies depending on how severe the problem. Brief intervention is often used with patients who have not yet developed alcohol use disorder and the goal may be to reduce drinking rather than abstinence. For persons with alcohol use disorder, the goal of brief intervention is abstinence, and for these individuals, referral to a more comprehensive treatment may be necessary. The USPSTF recommends that clinicians provide patients who are engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce alcohol misuse [246].

For patients without documented alcohol use disorder who screen positive for unhealthy alcohol use, Veterans Affairs recommends providing a single initial brief intervention regarding alcohol-related risks and advice to abstain or drink within nationally established age and gender-specific limits for daily and weekly consumption.

(https://www.healthquality.va.gov/guidelines/mh/sud. Last accessed May 10, 2021.)

Strength of Recommendation: Strong for

COMMON ELEMENTS OF BRIEF INTERVENTION

Miller and Sanchez proposed six elements, summarized by the acronym FRAMES, to describe the key elements of brief intervention: feedback, responsibility, advice, menu of strategies, empathy, and self-efficacy [271]. How these elements enhance effectiveness has been supported in other reviews [272; 273]. Goal setting, follow-up, and timing are also important in brief intervention [274; 275].

- **F**eedback of Personal Risk: Health professionals use current drinking behaviors, lab test results, and actual or potential consequences of drinking to provide patients with feedback on the risk of developing a problem.
- **R**esponsibility of the Patient: Brief intervention often includes encouraging the patient to recognize that it is his or her responsibility and choice to change the behavior. This gives patients a sense of personal control in the process of change.
- **A**dvice to Change: Brief intervention may also include recommendations about moderate- or low-risk drinking and advice on cutting down or eliminating alcohol consumption.
- **M**enu of Ways to Reduce Drinking: Patients are advised about how to cut back or avoid alcohol consumption. Health professionals can help patients set limits, recognize reasons for drinking, and acquire skills to avoid high risk drinking. Often, self-help materials such as drinking diaries are given to patients to help monitor their progress.
- **E**mpathetic Counseling Style: Confrontational methods of brief intervention are not as effective as when health professionals use a more empathetic counseling approach.
- **S**elf-Efficacy or Optimism of the Patient: Patients should be encouraged during brief intervention to help themselves by creating a plan to change their behavior and to think positively about their ability to reduce or stop drinking. Health professionals often use motivation-enhancing techniques.

In addition to FRAMES, the following items are important:

- Establishing a drinking goal: Patients should be encouraged to set a drinking goal with help from their physician. In some cases it is helpful to put the goal in writing. The drinking goal may be abstinence.
- Follow-up: It is important that the healthcare provider follows the patient's progress by telephone calls, or repeat tests or visits.

Patients are more likely to change their behavior when they recognize they have a problem and when they are optimistic about prospects for change; therefore, evaluating readiness to change is an important part of brief intervention. Some patients are not ready to change at the start of brief intervention, but may be ready when they experience adverse consequences of alcohol use. One study found that 77% of patients who were very confident and motivated were able to reduce their alcohol consumption by using self-help instructions and drinking diaries [276]. Motivation techniques are more useful to the resistant patient than self-help instructions.

Motivational interviewing is a method of brief intervention that is used to help move individuals from the precontemplation, contemplation, or determination/preparation stage into the action stage of change related to their drinking. In addition to focusing on the patient's view of the problem and consequences of the behavior, the interview often includes a comprehensive assessment of drinking behaviors with personalized feedback. Motivational interviewing therapists emphasize personal responsibility and support their patients' feelings of self-efficacy for making a change in their drinking. This method has demonstrated empirical efficacy with problem drinkers [277].

EFFECTIVENESS OF BRIEF INTERVENTION

Many studies have documented that brief intervention can assist patients without clinical alcohol use disorder to reduce alcohol consumption [278; 279; 280; 281; 282]. Brief intervention can also help motivate the patient with alcohol use disorder to enter treatment. One study in an emergency care setting found that 65% of individuals with alcohol use disorder who received brief counseling kept a follow-up appointment for treatment, compared with only 5% percent of those who did not have counseling [278]. Some studies have found that brief intervention may be as effective as more specialized treatment for some patients with alcohol use disorder [279; 283; 284].

Researchers conducted a comprehensive meta-analysis of controlled studies of brief intervention in treatment and nontreatment settings [285]. In this meta-analysis, effect sizes were calculated for several outcome variables, including amount and timing of alcohol consumed, abstinence rates and duration, proportion and duration of non-problem drinking, frequency of intoxication, laboratory markers, ratings of drinking severity, ratings of improvements, dependence symptoms, and problems resulting from drinking [285]. Two types of investigations were examined. The first group of studies (N=34) compared brief intervention to control conditions in non-treatment-seeking patients and generally did not include persons with severe alcohol problems. The second group of investigations (N=20) included persons who had more severe alcohol problems in a treatment setting. The effect size for brief intervention on alcohol consumption was noted at between three to six months in studies that excluded more severe alcohol problems [285]. This meta-analysis provides further documentation of the effectiveness of brief intervention provided by healthcare professionals to patients with alcohol problems, especially during the first three to six months after intervention. Effectiveness may decrease over time, so progress should be monitored and referrals made if

MOTIVATIONS FOR CHANGE

Patients are more likely to seek treatment if:

- There are few actual or perceived barriers to treatment.
- The expectation is that treatment will work and that it is a positive change.
- They think they need help.
- They "hit bottom."
- They no longer feel in control.
- They cannot change on their own.
- They want to change their behavior.
- They perceive that treatment will suit their needs.
- There is social pressure to stop drinking or get treatment.
- They experience notable or multiple problems (e.g., black-outs, DUI arrest, etc.).

Patients are less likely to seek treatment if:

- There are numerous real or perceived barriers to treatment.
- They fear being unable to cope without alcohol.
- There are negative perceptions of treatment or changing behavior.
- They think that treatment will not work.
- There is fear of withdrawal.
- They think they will be stigmatized.
- They believe that they will be unable to stop.
- They fear failure.
- They perceive continued use as positive.

Source: [289] *Table 2*

necessary. For those with more severe alcohol problems in a treatment setting, brief intervention may be appropriate as an initial treatment with nonresponders receiving more extensive/intensive treatment [285].

In summary, brief intervention can help patients without disordered alcohol consumption reduce or stop drinking, can help motivate patients with alcohol use disorder to enter treatment, and can be used to treat some patients with alcohol use disorder. One study reported that brief intervention is associated with decreased alcohol consumption and decreased healthcare utilization, motor vehicle events, and other related costs [286]. The study also reported that the cost-benefit analysis suggests that for every $10,000 invested in early intervention, there will be a $43,000 decrease in future healthcare costs [286]. A meta-analysis of brief alcohol interventions for adolescents and young adults found that the interventions yielded modest, but clinically significant positive effects on problematic alcohol use trajectories among youth [287].

READINESS TO CHANGE

Readiness to Change is Dimension 4 of the American Society of Addiction Medicine's (ASAM's) Six Dimensions of Multidimensional Assessment (also known as the ASAM Criteria) that is the standard for placement, continued stay, transfer, or discharge of patients with substance use disorder and co-occurring conditions [288]. Several factors influence a person's readiness and ability to change behaviors. It is useful to help patients to weigh the risks of continued alcohol consumption and benefits of decreasing or eliminating alcohol consumption. Physicians can help motivate the patient to become ready for treatment if the patient appears ready to change.

Is the patient ready to change? The role of motivation is an important part of changing behavior. ***Table 2*** summarizes the "pros" and "cons" of changing [289].

The Stages of Change Model is also useful in determining where a patient is in the process of change [290]. The stages of change include:

- Precontemplation
- Contemplation
- Preparation
- Action
- Maintenance
- Relapse

TREATMENT

Treatment works. People who make the decision to stop drinking will be able to find the treatment and support they need to quit, remain sober, and regain their lives. However, as with treatment for any other disease, it is important to have a good idea of the options available in order to make informed choices.

PHASES OF TREATMENT

To understand treatment and make the right treatment choices, it helps to have an overview. Treatment should be seen as having three phases.

- Phase 1: Assessment and evaluation of disease symptoms and accompanying life problems including co-occurring medical and psychiatric conditions utilizing ASAM Criteria, detoxification (withdrawal management), acute stabilization of comorbid conditions, making treatment choices, and developing a plan
- Phase 2: Residential treatment or therapeutic communities, intensive and regular outpatient treatment, medications to help with alcohol craving and to discourage alcohol use, medications to treat concurrent psychiatric illnesses, treatment of concurrent medical conditions, trauma and family therapy, 12-step programs, other self-help and mutual-help groups
- Phase 3: Maintaining sobriety and relapse prevention with ongoing outpatient treatment as needed, facilitated group meetings, contingency management, 12-step programs, other self-help and mutual-help groups

Drug testing frequently, randomly, and for-cause should be a mandatory component of all phases. Transition from one phase to the next should not be based on time but on individual symptoms and progress.

Getting Started

First, the individual with alcohol use disorder must overcome denial and distorted thinking and develop the willingness to begin treatment—what AA calls the desire to stop drinking. At this stage, it is important to obtain the help of someone knowledgeable about treatment and the options available.

When getting started, some people have lost control over alcohol to such an extent that they will only be able to make immediate decisions and set the most basic goal of quitting drinking. Development of a detailed treatment plan with goals and choices may have to wait until after detoxification. On the other hand, getting started is exactly the place where some people with alcohol problems get stuck. In being stuck, denial is always a problem, but complete denial is not universal: people have various levels of awareness of their alcohol use problems, which means they are in different stages of readiness to change their drinking behavior. Professionals have taken advantage of this insight about alcohol use disorder to develop treatment approaches that are matched to a person's readiness to change. Addiction specialists can best decide which treatment is best and which is the less restrictive at specific times during recovery.

Detoxification

Individuals with alcohol use disorder must stop using in order to be able to progress in treatment, which can be done on either an inpatient or outpatient basis. Medical evaluation and treatment are particularly important at this stage. A large proportion of persons with alcohol use disorder develop dangerous withdrawal symptoms that must be medically managed either in a hospital or on an outpatient basis.

Although detoxification is a critical step for many with alcohol use disorder, most treatment professionals are reluctant to call it treatment, and for good reason. Treatment is what helps a person develop a commitment to change, keep the motivation to change, create a realistic plan to change, and put the plan in action. Successful treatment means a person begins to experience the rewards of seeing the plan work. Just taking away the alcohol does not automatically produce any of these outcomes.

Withdrawal Symptoms and Medical Management

Abrupt discontinuation or even cutting down on the amount of drinking by persons who are physiologically dependent on alcohol produces a characteristic withdrawal syndrome with sweating, rapid heartbeat, hypertension, tremors, anorexia, insomnia, agitation, anxiety, nausea, and vomiting [291]. In some ways, alcohol withdrawal resembles withdrawal from opioids, but unlike opioid withdrawal, which is rarely life-threatening in and of itself, alcohol withdrawal can be fatal. As many as 15% of persons with alcoholism progress from the autonomic hyperactivity and agitation common to withdrawal from other drugs to seizures and, for some, even death. In some cases, DT may occur within the first 48 to 72 hours and can include disorientation, confusion, auditory or visual hallucinations, and psychomotor hyperactivity [291].

The Revised Clinical Institute Withdrawal Assessment for Alcohol Scale (CIWA-Ar) is a symptom-triggered, 10-item scale that quantifies the risk and severity of alcohol withdrawal [291]. However, in order to be most useful, it requires patient input, which may not be feasible in patients undergoing severe DTs. If the patient is able, the assessment takes only minutes and aids in identification of patients who may need immediate pharmacologic treatment to prevent further complications. Very mild withdrawal usually corresponds with a score of 9 or less, mild withdrawal with a score between 10 and 15, modest withdrawal with a score between 16 and 20, and scores greater than 20 indicate severe withdrawal [292].

Patients scoring less than 9 may not require pharmacologic intervention. However, reassessment of symptoms should be performed every one to two hours until withdrawal is resolved.

Pharmacologic management of acute alcohol withdrawal generally involves the use of benzodiazepines, which reduce related anxiety, restlessness, insomnia, tremors, DT, and withdrawal seizures [291]. Benzodiazepines are the most widely used, and while they may have abuse liability in some patients, they have been safely used for years [293; 294; 295]. These medications may be administered either on a fixed interval or symptom-triggered schedule. However, both short-acting and long-acting benzodiazepines have their problems. The long-acting benzodiazepines can decrease rebound symptoms and work for long periods of time, but intramuscular absorption can be very erratic. Short-acting benzodiazepines have less risk of oversedation, no active metabolites, and considerable utility in patients with liver problems or disease. Yet, breakthrough symptoms can and do occur, and risk of seizure is imminent.

Patients with withdrawal symptoms are generally treated with diazepam or chlordiazepoxide until withdrawal subsides [291; 293; 294]. These medications are preferred due to their long action, which decreases the risk of rebound symptoms. If intramuscular administration is necessary, lorazepam is the drug of choice. More severe withdrawal is generally treated in a hospital setting. In patients with severe hepatic dysfunction, benzodiazepines that are metabolized outside the liver (lorazepam and oxazepam) are preferred. Treatment-resistant withdrawal warrants the use of phenobarbital or propofol, both with demonstrated efficacy in management [295].

Other medications may be used in conjunction with benzodiazepines for the treatment of withdrawal. Anticonvulsants, especially carbamazepine, are used safely to treat withdrawal [293]. They do not have abuse liability and have anticonvulsant and antikindling effects. Nevertheless, they also have problems. They do not reduce delirium and can have liver toxicity. The anticonvulsant gabapentin has demonstrated efficacy for mild alcohol withdrawal and early abstinence, but there is concern about its potential for abuse [296]. Alpha-adrenergic agonists like clonidine can reverse many of the behavioral symptoms of withdrawal but do not prevent seizure and can cause hypotension. However, for those patients with coronary artery disease, use of an alpha-adrenergic agonist or beta blocker may be indicated; however, these agents do not prevent seizures and can mask some signs of worsening withdrawal. They should be used only in conjunction with benzodiazepines [297]. More research is necessary regarding the efficacy of calcium channel antagonists in the treatment of alcohol withdrawal [298]. Studies have shown that those who have withdrawal seizures may have a worse prognosis than those who do not [87; 88].

In the earliest views of alcohol use disorder, relapse to alcohol use was primarily seen as the patient's failure to respond to withdrawal treatment. After all, if the addicted person's primary problem was the trap of withdrawal, it would be reasonable to expect that the newly freed prisoner would gratefully and persistently grasp onto alcohol-free status, never to return voluntarily to the prison of addiction. But many people returned repeatedly for detoxification.

The medical profession was remarkably slow to recognize the ineffectiveness of repeated detoxification. Rather than question the underlying assumption that medical diagnosis and treatment of withdrawal was the solution to the problem of dependence, physicians seemed content to recycle people through one emergency room or detoxification experience after another for what often proved to be an addiction-shortened lifetime. Detoxification is only the first step in the treatment process, and the beginning of a lifelong process.

As the detoxification process occurs, careful evaluation should be done to identify co-occurring medical and psychiatric conditions that require acute stabilization. This should be done before facilitating a smooth transition to phase 2.

It is crucial to decide if the patient requires acute hospitalization or inpatient detoxification. It has been established that hospitalization can be cost-effective, but this is not always a possibility. However, if a patient appears to have acute intoxication, exhibits or will exhibit withdrawal symptoms that will require medical management, has failed outpatient detoxification, appears to be depressed or suicidal, relapses shortly after previous detoxification, has an extremely unstable home situation, or has the possibility of family disruption or job loss, then inpatient hospitalization is likely indicated. If you are in doubt, call a physician who is a member of the ASAM or the American Academy of Addiction Psychiatry who specializes in these problems.

Active Treatment

The next step is what has been commonly known as "active treatment." Relapse to alcohol use disorder is most likely to occur in the first three to six months after a person stops drinking; a period characterized by physiologic abnormalities, mood changes, and complaints of anxiety, depression, insomnia, and hormone and sleep problems. Getting active help and support during the early months of sobriety is critical for treatment to succeed.

This is the stage in which a person gains the motivation necessary to maintain a commitment to sobriety, the knowledge and skills necessary to stay sober, and the support systems necessary to cope with all the problems of daily life (the problems that everyone has to face) without resorting to the old "solution" of drinking. This is when the assistance of a treatment professional is important. A professional can help patients better understand how alcohol has affected their lives, so they can set goals and develop a plan to stay sober. In addition, the treatment professional can assist the patient in choosing the treatment options that are right for them.

Some proven medications are available to help with alcohol craving and to discourage alcohol use and will be discussed in detail later in this course. The treatment professional will also need to choose medications and treatments for concurrent psychiatric illnesses, like depression or anxiety, if appropriate, or for a variety of health problems that often accompany alcohol use disorder.

Research has shown that the longer people stay in treatment, remain sober, and are actively committed to sobriety, the more likely it is that they will maintain sobriety. Some treatment professionals think of the phase of active treatment as lasting from 6 to 12 months. During the first critical months of treatment, people often need a variety of supports, especially drug testing and AA or other self-help groups, to achieve and maintain lasting sobriety.

Maintaining Sobriety and Relapse Prevention

It is often difficult to pinpoint when the active treatment phase ends and a person enters the maintenance phase of recovery. In phase 2, people learn what they need to do to stay sober and they develop the many skills they will use to avoid relapse. A person could be said to enter this maintenance and growth stage when he or she is comfortable with these skills and has had a chance to rely on them to stay sober when life throws them the inevitable curveballs, either as a crisis or an everyday problem. Many people in recovery attribute their ongoing sobriety to participation in a support group such as AA or Women for Sobriety.

A promising approach to maintain gains made in active treatment is a low-intensity, telephone-based approach. In a 2005 study, this program of follow-up care was compared with two more intensive face-to-face continuing care interventions. Patients with alcohol use disorder who had completed 4-week intensive outpatient programs were provided three 12-week continuing care treatments. Telephone-based continuing care was found to be an effective form of step-down treatment for most patients with alcohol use disorder who complete an initial stabilization treatment, compared with more intensive face-to-face interventions [299].

ALCOHOLICS ANONYMOUS AND OTHER 12-STEP PROGRAMS

The grandfather of successful alcohol treatment is Alcoholics Anonymous, a self-help organization founded in 1935 that changed the way professionals thought about alcohol use disorder and treatment. AA developed a very successful 12-step program that combines self-help with a spiritual foundation and is based on the fellowship of recovering alcoholics. Although there is a spiritual foundation in AA, one is not required to be religious. The organization is run entirely by recovering alcoholics and reaches into virtually every community with a specific program as well as around-the-clock assistance. Membership is available to anyone wishing to join, and there are no financial dues. AA has probably done more to promote the self-help concept than any other organization.

For many people with alcohol use disorder, attending an AA meeting is like brushing their teeth. Prevention of relapse is an active daily process. AA provides fellowship that can be exceptionally positive and counterbalance the feelings of loss, grief, and shame often associated with alcohol use disorder.

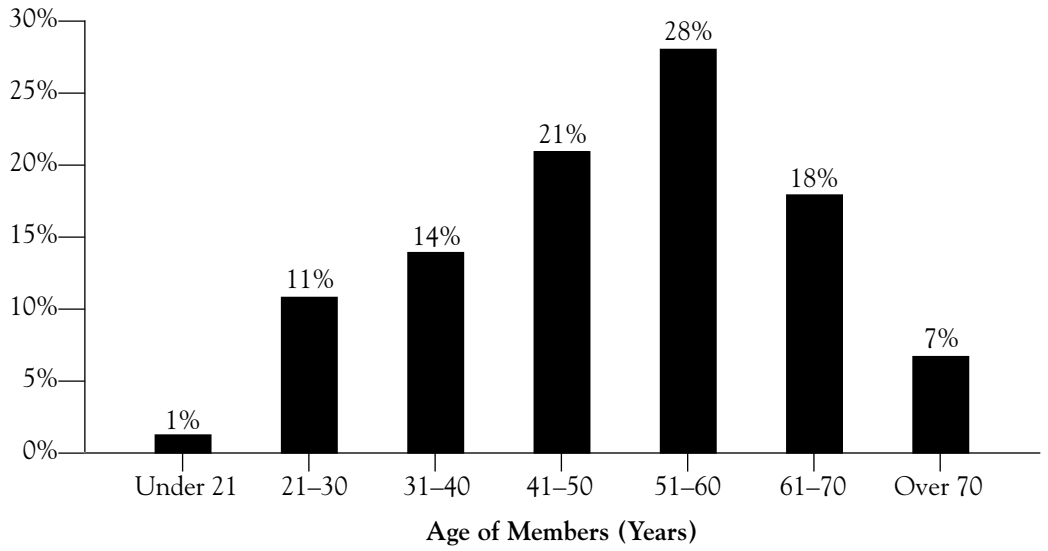
AA and other 12-step programs are effective treatment programs that facilitate long-term abstinence after treatment, especially for patients with low psychiatric severity [300]. AA provides important group process therapy for individuals with alcohol use disorder. AA also helps individuals with relapse and relapse prevention by prescribing that people keep it simple, take it one day at a time, and avoid the people, places, and things associated with their use. They also help recovering alcoholics to develop positive lifestyles and find new ways to solve old problems. The feeling of fellowship, the support, and guidance to sobriety makes recovery more likely. Reduction of shame and guilt and acceptance of powerlessness over drinking may be reported by individuals with alcohol use disorder after attending meetings every day. An AA meeting may take one of several forms, but at any meeting you will find alcoholics talking about what drinking did to their lives and personalities, what actions they took to help themselves, and how they are living their lives today. The age distribution of AA members is illustrated in ***Figure 3***.

Patients can find the listing for a nearby AA group in the telephone book or online. Typically, a person in recovery will answer the telephone. Websites provide printable lists of all local meetings with time, location, types of meeting, and often directions. One of AA's principles is the value of performing services that will help other alcoholics. Answering the telephone at the local AA office is one of these services, reserved for those who have been in recovery long enough to answer questions in a knowledgeable manner and provide a nonjudgmental ear.

A Cochrane review found that AA, the premier mutual aid peer-recovery program definitely helps people get sober [358]. In addition, AA has significantly higher rates of continuous sobriety compared with evidence-based professional mental health therapy, such as cognitive-behavioral therapy, alone. AA was often was found to be markedly better than other interventions or quitting cold turkey. One study found the program 60% more effective than alternatives [358].

The study by Harvard and Stanford addiction researchers of 10,565 subjects determined that AA was nearly always found to be more effective than psychotherapy in achieving abstinence [358].This review concluded that AA participation improved the duration of abstinence and the amount they reduced their drinking (if they continued drinking). AA had harm reduction features as well, reducing the medical

ALCOHOLICS ANONYMOUS 2014 MEMBERSHIP SURVEY[a]



[a]Represents the most recent AA Membership Surveys as of 2021.

Source: [301] *Figure 3*

consequences of drinking and related healthcare costs. While not a random assignment treatment comparison study, in this analysis, AA was never found less effective than other treatments. As such, AA could be a helpful addition to any treatment for alcohol use disorder. For example, adding AA to naltrexone would be expected to be better than pharmacotherapy alone. Recent studies and the preponderance of evidence supports the effectiveness of 12-step program involvement in sustaining abstinence [10]. Stable and long-term abstinence was associated with living longer, better mental health, better marriages, being more responsible parents, and being successful employees.

A brain imaging study by Yale researchers showed that those diagnosed with alcohol use disorder showed disruptions of activity between the ventromedial prefrontal cortex and striatum, a brain network linked to decision making [360]. Time is necessary for re-learning how to be sober but also for brain recovery. The more recent the last drink, the more severe the disruption, and the more likely the individual will relapse to drinking. The Yale researchers also found that the severity of disruption between these brain regions recovers very slowly, day after day, gradually over time. They conclude the longer subjects with alcohol use disorder abstain from alcohol, the better. The number of days of alcohol abstinence at treatment initiation significantly affected functional disruption of the prefrontal-striatal responses to alcohol cues in patients with alcohol use disorder and brain imaging abnormalities [360].

COUNSELING

Cognitive-behavioral therapies (CBTs) are among the most frequently evaluated approaches used to treat substance use disorders [302; 303]. CBTs have been shown to be effective in several clinical trials of substance users [304]. Characteristics of CBTs include:

- Social learning and behavioral theories of drug abuse
- An approach summarized as "recognize, avoid, and cope"
- Organization built around a functional analysis of substance use (i.e., understanding substance use with respect to its antecedents and consequences)
- Skill training focused on strategies for coping with craving, fostering motivation to change, managing thoughts about drugs, developing problem-solving skills, planning for and managing high-risk situations, and cultivating drug refusal skills

Basic principles of CBTs are that [305; 306]:

- Basic skills should be mastered before more complex ones are given.
- Material presented by the therapist should be matched to patient needs.
- Repetition fosters the development of skills.
- Practice is needed for mastery of skills.

- The patient is an active participant in treatment.
- Skills taught are general enough to be applied to a variety of problem areas.

Structured behavior therapy techniques can be effective components of alcohol use disorder treatment. Contingent incentive procedures are designed to enhance a patient's motivation to meet treatment goals by offering concrete rewards for specific performance outcomes.

Behavioral therapy techniques are often part of CBT. In this approach, substance use is believed to develop from changes in behavior and a reduction in opportunities for reinforcement of positive experience. The goal is to increase the person's engagement in positive or socially reinforcing activities. Techniques such as having patients complete a schedule of weekly activities, engaging in homework to learn new skills, role-playing, and behavior modification are used. Activity, exercise, and scheduling are major components of this approach based on the following:

- Drug abuse patients need motivation and skills to succeed in stopping drug use.
- Research has shown that drug abuse behavior can be reduced by offering contingent incentives for abstinence.
- The most striking successes have come from positive reinforcement programs that provide contingent incentives for abstinence using money-based vouchers as rewards.
- Research provides examples, but treatment providers may need to be creative in discovering reinforcers that can be used for contingency management in their own clinical settings.

Family therapy is a highly effective treatment for alcohol use disorder, especially in adolescents. While most treatments emphasize the individual as the target of intervention, the defining characteristic of family therapy is the transformation of family interactions. Repetitive patterns of family interactions are the focus of treatment. Changing these patterns results in diminished antisocial behavior including alcohol abuse. Family therapy can work with a broad range of family and social network populations. Family therapy approaches have developed specific interventions for engaging and keeping reluctant, unmotivated adolescents and family members in treatment.

MEDICATIONS USED TO TREAT ALCOHOL USE DISORDER

Alcohol drinking is an immensely complex human behavior, but it has been modeled in laboratory animals. Two similar strains of alcoholic rats, the alcohol-preferring (P) rats and the high-alcohol-drinking (HAD) rats, have been successfully used to study alcohol use disorders. Like patients with DSM-5 qualifying alcohol use disorders, these rats self-administer alcohol, show tolerance, lose control over alcohol, and spend a lot of time. They also have cravings and physical stigmata of withdrawal, providing psychopharmacologic researchers with excellent face validity with animal models. Models have helped us develop anti-withdrawal, anti-craving, and harm-reducing treatments.

Several medications are available to help treat alcohol use disorder [307; 308]. Some are used for detoxification and others are used to prevent relapse. Research has shown that medications are most effective when used in conjunction with other therapies.

Disulfiram

Disulfiram, commonly known as Antabuse, was the first drug to be made available for the treatment of alcohol use disorder. It was approved for treatment of alcohol use disorder by the FDA in 1951 and has been used safely and effectively for more than half a century. It works by blocking an enzyme, aldehyde dehydrogenase, that helps metabolize alcohol. Taking even one drink while on disulfiram causes the alcohol at the acetaldehyde stage to accumulate in the blood. This produces nausea, vomiting, sweating, and even difficulty breathing. More alcohol in the patient's system produces more severe reactions (e.g., respiratory depression, cardiovascular collapse, unconsciousness, convulsions, death) [308; 309]. Patients must also be mindful of consuming even minute amounts of alcohol in foods, over-the-counter medications, mouthwash, and even topical lotions. Disulfiram can be effective for people who have completed alcohol withdrawal, are committed to staying sober, and are willing to take the medication under the supervision of a family member or treatment program [308]. Due to more modern and improved medication modalities, many clinicians prescribe disulfiram as a last resort intervention. Although widely used, it is less clearly supported by clinical trial evidence [310; 311; 312].

The recommended dose for disulfiram is 250 mg/day, which can be increased to 500 mg based upon whether a patient experiences the disulfiram-ethanol reaction [313]. Doses may need to be reduced in patients older than 60 years of age [308]. Labeling for disulfiram includes several precautions regarding drug-drug interactions; therefore, caution should be used when prescribing it to older adults at risk for polypharmacy [308]. Due to the physiologic changes that occur with use, use of disulfiram is not recommended in patients with diabetes, cardiovascular or cerebrovascular disease, or kidney or liver failure. It also is contraindicated in the presence of psychoses and pregnancy and in those with high levels of impulsivity and suicidality [308].

Naltrexone

Naltrexone (ReVia) is an opioid antagonist that interferes with the rewarding or pleasurable effects of alcohol and reduces alcohol craving [314; 315; 316]. The exact mechanisms by which naltrexone induces the reduction in alcohol consumption observed in patients with alcohol use disorder is not entirely understood, but preclinical data suggest involve-

ment of the endogenous opioid system [308]. Naltrexone has been shown to reduce alcohol relapses, decrease the likelihood that a slip becomes a relapse, and decrease the total amount of drinking [308]. The FDA approved the use of oral naltrexone in alcohol use disorder in December 1994 [308; 316]. In 2006, the FDA approved an extended-release injectable formulation, which is indicated for use only in patients who can refrain from drinking for several days prior to beginning treatment [308]. In 2010, the FDA approved the injectable naltrexone for the prevention of relapse to opioid dependence following opioid detoxification [308]. Naltrexone, which has long been used to treat heroin addicts, was not known as a treatment that could reduce alcohol relapse until the 1980s. In 1980, researchers reported reductions in monkey ethanol self-administration when they were pretreated with naltrexone [317].

By 1992, researchers reported a six-week, double-blind placebo-controlled outpatient naltrexone trial with 70 individuals with alcohol use disorder. They found that the naltrexone-treated patients had a lower relapse rate, fewer drinking episodes, longer time to relapse, and reduced tendency for a slip to become a relapse [318]. These and other data suggested that endogenous opioids were important in alcohol reinforcement.

Also in 1992, researchers compared naltrexone with placebo and found that naltrexone-treated patients had lower rates of relapse to heavy drinking, consumed fewer drinks per drinking-day, and had lower dropout rates than placebo-treated patients with alcohol use disorder [319]. These results have since been supported by other studies [320]. Research suggests that naltrexone may be most effective for individuals with alcohol use disorder and a family history of alcohol use disorder [321]. However, one study found no significant effects for naltrexone in individuals with a family history of alcoholism on percentage of days abstinent, drinks per drinking day, and percentage of heavy drinking days [322].

Another study investigated pretreatment social network variables as potential moderators of naltrexone's treatment effects [323]. The study sample included 1,197 participants from the COMBINE study, the largest pharmacotherapy trial conducted for alcoholism in the United States. In treatment conditions involving combined CBT and medical management, the effects of naltrexone on heavy drinking were significantly greater for individuals with frequent drinkers in their social network and greater frequency of contact with those drinkers, indicating patterns of environmental exposure to alcohol [323; 324].

After a complete history, physical exam, and laboratory testing, most patients are started on 50 mg orally per day [220]. For most patients, this is the safe and effective dose of naltrexone. However, in a four-month study period, the COMBINE study demonstrated efficacy of naltrexone at a dose of 100 mg daily [325]. Some treatment providers give patients a naltrexone identification card or ask them to order a MedicAlert bracelet that clearly indicates that they are maintained on an opioid antagonist, so if they need an opiate drug or medication for pain relief, the dose of the pain medication can be adjusted higher. Meta-analyses have revealed that approximately 70% of previous clinical trials that measured reductions in "heavy or excessive drinking" demonstrated an advantage for prescribing naltrexone over placebo [326]. In another trial, naltrexone was determined to have the greatest impact on reducing daily drinking when craving for alcohol was highest [327]. The approved dose of the extended-release formulation is 380 mg IM once per month. Pretreatment with oral naltrexone is not required before induction onto extended-release injectable naltrexone [308].

The most common side effects of naltrexone are light-headedness, diarrhea, dizziness, and nausea. Pain or tenderness at the injection site is a side effect unique to the extended-release injectable formulation [308]. Most side effects tend to disappear quickly in most patients. Naltrexone is not recommended for patients with acute hepatitis or liver failure, for adolescents, or for pregnant or breastfeeding women [308; 325]. Weight loss and increased interest in sex have been reported by some patients. In general, patients maintained on opioid antagonists should be treated with nonopioid cough, antidiarrheal, headache, and pain medications. The patient's family or physician should call the treating physician if questions arise about opioid blockade or analgesia. It is important to realize that naltrexone is not disulfiram; drinking while maintained on naltrexone does not produce side effects or symptoms.

Naltrexone works best when it is used in the context of a full spectrum of treatment services, possibly including traditional 12-step fellowship-based treatments. Studies show also that naltrexone is effective when coupled with CBT. Patients receiving medical management with naltrexone, CBT, or both fared better on drinking outcomes [325].

Acamprosate

Acamprosate (Campral) is a synthetic compound that has a chemical structure similar to that of the naturally occurring amino acid neurotransmitters taurine and GABA [220]. Because chronic alcohol use is associated with decreased GABA and glutamate activity, a hyperexcitable glutamate system is one possible alcohol withdrawal mechanism. Glutamate systems may become unstable for 12 months after a person stops drinking. In a review of published, double-blind, placebo-controlled clinical trials evaluating the safety and efficacy of acamprosate in the treatment of alcohol use disorder, Mason reported that acamprosate appeared to improve treatment completion rate, abstinence rate and/or cumulative abstinence during treatment, and time to first drink, than placebo [328]. The effect on abstinence, combined with an excellent safety profile, lend support to the use of acamprosate across a broad range of patients with alcohol use disorder. A dose of 2,000 mg/day is associated

with the greatest efficacy regardless of body weight [329]. It is important to note that medication in combination with therapies can improve outcomes.

In July 2004, after many years of safe use in Europe and around the world, the FDA approved the use of acamprosate for the maintenance of alcohol abstinence [316]. As in the case of naltrexone, acamprosate reduces the reinforcing (pleasurable) effects of alcohol to reduce craving. Oral dosing is two 33-mg delayed-release tablets three times daily [220; 308]. Common side effects include diarrhea, anxiety, insomnia, nausea, dizziness, and weakness. Some research indicates that acamprosate may worsen depression and/or suicidal ideation; so, patients with a history of major depression should be monitored closely or prescribed a different medication [220]. Acamprosate is contraindicated in patients with severe renal impairment [220; 308]. Due to risk of diminished renal function in patients 65 years of age and older, baseline and frequent renal function tests should be performed in this population. Dose reductions also may be necessary [308].

The effectiveness of acamprosate in promoting abstinence has not been demonstrated in individuals who have not completed detoxification or who have not achieved alcohol abstinence before beginning treatment [308]. An analysis of many studies of acamprosate showed a benefit in maintaining abstinence when coupled with CBT [325]. A systematic review found similar benefit [330]. Results of other research into the effectiveness of acamprosate have been mixed. One study showed no improvement in measures of psychologic well-being or health status when compared to treatment with placebo. Another study demonstrated both safety and effectiveness of acamprosate for treating alcohol use disorder [331].

Baclofen

Baclofen is a GABA agonist that may prove to be a unique therapeutic alternative to reduce alcohol craving and consumption. In a small, 12-week trial, patients with alcohol use disorder were given 10 mg of baclofen three times daily paired with motivational enhancement therapy. Patients experienced a reduction in number of drinks, drinking days, anxiety, and craving [332]. In a study of patients with alcohol use disorder and liver cirrhosis, baclofen was also found to work favorably in maintenance of alcohol abstinence. Seventy-one percent of baclofen-treated patients maintained abstinence as compared with 29% of the placebo group [333]. A 2018 meta-analysis of 12 randomized controlled trials that compared the efficacy of baclofen to placebo found that baclofen was associated with higher rates of abstinence than placebo but that its effects were not superior to placebo in increasing the number of abstinent days or in decreasing heavy drinking, craving, depression, or anxiety [334].

Anticonvulsants

Research has demonstrated that topiramate is efficacious in decreasing heavy drinking among individuals with alcohol use disorder [335]. In a controlled study, topiramate produced significant and meaningful improvement in a wide variety of drinking outcomes [336]. Topiramate may suppress the craving and rewarding effects of alcohol [337]. In a double-blind, controlled trial, 150 patients with alcohol use disorder were randomized to escalating doses of topiramate (25–300 mg/day) or placebo. Those on topiramate had a reduction in self-reported drinking (number of drinks and drinking days), alcohol craving, and plasma γ-glutamyl transferase (an indicator of alcohol consumption) [338]. Side effects of topiramate include numbness in the extremities, fatigue, confusion, paresthesia, depression, change in taste, and weight loss. Use of topiramate for alcohol use disorder is off-label [220].

Carbamazepine has proven effective for treating acute alcohol withdrawal [339]. Its side effects include nausea, vomiting, drowsiness, dizziness, chest pain, headache, trouble urinating, numbness in extremities, liver damage, and allergic reaction [220]. In a 12-month, double-blind, placebo-controlled trial, 29 patients were assigned to carbamazepine three times daily (to reach an average blood level of 6 mg/liter) or placebo. Those treated with carbamazepine showed a delay in time to first drink and a decrease in number of drinks and drinking days [340].

Oxcarbazepine is a carbamazepine derivative, with fewer side effects and contraindications, used to prevent relapse in patients with alcohol use disorder by blocking alcohol withdrawal [339]. A group of 84 patients with alcohol use disorder following detoxification were randomized to 50 mg naltrexone, 1,500–1,800 mg oxcarbazepine, or 600–900 mg oxcarbazepine for 90 days. Approximately 58.6% of the high-dose oxcarbazepine patients remained alcohol-free, a significantly larger number as compared to the low-dose (42.8%) and naltrexone groups (40.7%) [341].

Treatment in Special Populations

Ondansetron is a serotonin antagonist and antiemetic that may block the rewarding effects of alcohol, specifically in the early-onset alcoholic subgroup. Early-onset alcoholism differs from late-onset in its association with abnormal serotonin and antisocial behavior. In a double-blind, controlled trial of ondansetron as an adjunct to cognitive-behavioral therapy, ondansetron was shown to reduce self-reported drinking and increase abstinence as compared to placebo. These results were confirmed by measure of plasma carbohydrate deficient transferring, a biomarker of alcohol consumption [342]. One hypothesis suggests that ondansetron may reduce drinking in individuals with alcohol use disorder with the LL genotype [343].

Buspirone hydrochloride is a dopamine antagonist and partial agonist for serotonin, exhibiting anxiolytic properties. In a 12-week randomized, placebo-controlled trial among 61 patients with alcohol use disorder and anxiety, buspirone was associated with slower return to heavy alcohol consumption and fewer drinking days [344]. One study found buspirone to be effective in treatment of comorbid anxiety disorder and alcohol use disorder [345].

Clozapine is an atypical antipsychotic approved to treat schizophrenia and its resultant symptoms (e.g., hallucinations, suicidal behavior). In case studies, it has shown promise in the treatment of comorbid substance use. In a study of 151 individuals with schizophrenia with comorbid substance use, 36 were given clozapine [346]. Those who abused alcohol experienced a reduction in drinks and drinking days.

Other drugs under trial for use in the treatment of alcohol use disorder include varenicline and lithium. Varenicline does appear to help reduce drinking in some individuals with alcohol use disorder; however, concerns exist regarding reports of an association between the drug and an increased risk for suicidal thoughts and cardiovascular events [347]. Studies have demonstrated that varenicline helps reduce alcohol craving and consumption in patients with alcohol use disorder and in individuals with alcohol use disorder who also smoke [348; 349; 350]. None of the medications mentioned for alcohol use disorder are recommended for women who are pregnant or breastfeeding.

TREATMENT OF ALCOHOL WITHDRAWAL

Benzodiazepines have been used for 30 years in the United States as the primary medical treatment for alcohol withdrawal syndrome. All benzodiazepines appear similarly effective in the treatment of alcohol withdrawal syndrome [351]. Although benzodiazepines are the drugs of choice, there are concerns about the side effects and, as stated, problems of abuse, especially for outpatient detoxification. Benzodiazepines are sedatives and cause deficiencies in psychomotor abilities that, when combined with alcohol, can cause accidents and affect the ability to think clearly. However, benzodiazepines are, and have been, effective in treating alcohol withdrawal symptoms and preventing most seizures. Other regimens for alcohol withdrawal syndrome include barbiturates, propofol, and ethanol [352; 353; 354].

A desirable alternative to benzodiazepines would be a nonsedative anticonvulsant that has less potential for abuse and dependence. Valproic acid has been used in Europe safely and successfully for many years for alcohol withdrawal syndrome, but is only approved by the FDA for the treatment of mania, seizures, and migraines. Valproic acid should be used as an adjunctive therapy, not as monotherapy [351]. According to clinical reports, valproic acid is an anticonvulsant with no potential for abuse and is better tolerated by patients. Valproic acid also has less cognitive impairment and causes fewer deficiencies of psychomotor abilities than benzodiazepines; however, benzodiazepines have allowed for safe detoxification for patients with alcohol use disorder since they were approved. While detoxification is not treatment, and detoxification problems have not been the most important problem area in successful treatment of the patient with alcohol use disorder, these are important findings.

Recognizing that relapse prevention and harm-reducing medications are safe and effective in alcohol use disorders, fewer than 10% of these patients are given medication-assisted treatment. In a 2018 meeting of the American Psychiatric Association, experts suggested [359]:

- Naltrexone or acamprosate should be offered to those patients with moderate-to-severe alcohol use disorder that have a goal of reducing consumption or achieving abstinence, prefer pharmacotherapy, or have not responded to nonpharmacologic therapies, and have no contraindications.
- Disulfiram should be offered to patients with severe alcohol use disorder that seek to achieve abstinence, prefer the therapy, or have not responded (or are intolerant) to naltrexone or acamprosate, and have no contraindications. Additionally, patients must understand the risks associated with consuming alcohol while on disulfiram.
- Topiramate or gabapentin should be offered to patients with moderate-to-severe alcohol use disorder when they aim to reduce or achieve abstinence, prefer them to other medications, or have not responded to naltrexone or acamprosate and have no contraindications.
- Benzodiazepine use is discouraged except in patients with alcohol use disorder who require treatment for acute alcohol withdrawal.

MANDATORY TREATMENT

Even coerced or court-mandated treatment for alcohol use disorder can work. In a follow-up study (six months to one year) of Florida physicians with alcohol use disorder, 84% had positive outcomes, defined as positive counselor and physician assessment, negative alcohol testing, group attendance, and full return to work [86].

CONCLUSION

In a society where alcohol use is ubiquitous, it is important for healthcare professionals to recognize the signs and symptoms of alcohol abuse and intervene before a state of dependence is reached. It is critical to stress upon patients the negative health effects of excessive alcohol consumption, especially the synergistic effects of alcohol and tobacco use, beginning at an early age. Owing to the several benefits provided by low to moderate drinking as discussed in this course, certain patients can be advised to drink more regularly, provided alcohol use is not contraindicated due to drug or herb interactions.

RESOURCES

Al-Anon Family Groups
The mission of Al-Anon is to provide support for friends and families of problem drinkers.
https://al-anon.org
1600 Corporate Landing Parkway
Virginia Beach, VA 23454-5617
757-563-1600

Alcoholics Anonymous
https://www.aa.org

American Society of Addiction Medicine (ASAM)
The nation's medical specialty society dedicated to educating physicians and improving the treatment of individuals suffering from alcoholism and other addictions. The mission of the ASAM is to:

- Increase access to and improve the quality of addiction treatment
- Educate physicians, medical and osteopathic students, other healthcare providers, and the public
- Promote research and prevention
- Promote the appropriate role of the physician in the care of patients with addiction
- Establish addiction medicine as a specialty recognized by the American Board of Medical Specialties

https://www.asam.org
11400 Rockville Pike
Suite 200
Rockville, MD 20852
301-656-3920

MedicAlert Foundation
https://www.medicalert.org
101 Lander Avenue
Turlock, CA 95380
1-800-432-5378

FACULTY BIOGRAPHIES

Mark S. Gold, MD, DFASAM, DLFAPA, is a teacher of the year, translational researcher, author, mentor, and inventor best known for his work on the brain systems underlying the effects of opiate drugs, cocaine, and food. Dr. Gold was a Professor, Eminent Scholar, Distinguished Professor, Distinguished Alumni Professor, Chairman, and Emeritus Eminent Scholar during his 25 years at the University of Florida. He was a Founding Director of the McKnight Brain Institute and a pioneering neuroscience-addiction researcher funded by the NIH-NIDA-Pharma, whose work helped to de-stigmatize addictions and mainstream addiction education and treatment. He also developed and taught courses and training programs at the University of Florida for undergraduates and medical students.

He is an author and inventor who has published more than 1,000 peer-reviewed scientific articles, 20 text books, popular-general audience books, and physician practice guidelines. Dr. Gold was co-inventor of the use of clonidine in opioid withdrawal and the dopamine hypothesis for cocaine addiction and anhedonia. Both revolutionized how neuroscientists and physicians thought about drugs of abuse, addiction, and the brain. He pioneered the use of clonidine and lofexidine, which became the first non-opioid medication-assisted therapies. His first academic appointment was at Yale University School of Medicine in 1978. Working with Dr. Herb Kleber, he advanced his noradrenergic hyperactivity theory of opioid withdrawal and the use of clonidine and lofexidine to ameliorate these signs and symptoms. During this time, Dr. Gold and Dr. Kleber also worked on rapid detoxification with naloxone and induction on to naltrexone.

Dr. Gold has been awarded many state and national awards for research and service over his long career. He has been awarded major national awards for his neuroscience research including the annual Foundations Fund Prize for the most important research in Psychiatry, the DEA 30 Years of Service Pin (2014), the American Foundation for Addiction Research's Lifetime Achievement Award (2014), the McGovern Award for Lifetime Achievement (2015) for the most important contributions to the understanding and treatment of addiction, the National Leadership Award (NAATP) from addiction treatment providers for helping

understand that addiction is a disease of the brain, the DARE Lifetime Achievement Award for volunteer and prevention efforts, the Silver Anvil from the PR Society of America for anti-drug prevention ads, the PRIDE and DARE awards for his career in research and prevention (2015), and the PATH Foundation's Lifetime Achievement Award (2016) as one of the "fathers" of addiction medicine and MAT presented to him by President Obama's White House Drug Czar Michael Botticelli. He was awarded Distinguished Alumni Awards at Yale University, the University of Florida, and Washington University and the Wall of Fame at the University of Florida College of Medicine. Gold was appointed by the University President to two terms as the University's overall Distinguished Professor, allowing him to mentor students and faculty from every college and institute. The University of Florida College of Medicine's White Coat Ceremony for new medical students is named in his honor.

Since his retirement as a full-time academic in 2014, Dr. Gold has continued his teaching, mentoring, research, and writing as an Adjunct Professor in the Department of Psychiatry at Washington University and an active member of the Clinical Council at the Washington University School of Medicine's Public Health Institute. He regularly lectures at medical schools and grand rounds around the country and at international and national scientific meetings on his career and on bench-to-bedside science in eating disorders, psychiatry, obesity, and addictions. He continues on the Faculty at the University of Florida College of Medicine, Department of Psychiatry as an Emeritus Distinguished Professor. He has traveled extensively to help many states develop prevention, education, and treatment approaches to the opioid crisis.

William S. Jacobs, MD, is a national clinical expert, triple board certified in Anesthesiology, Pain Medicine, and Addiction Medicine. A Phi Beta Kappa, magna cum laude University of Georgia undergraduate and graduate of the Medical College of Georgia, Dr. Jacobs did his anesthesiology residency at the University of Alabama-Birmingham, where he won the Dripps Award for the Best Anesthesiology Resident. He had a 13-year career as a private practitioner in anesthesiology and pain management before matriculating to the University of Florida for his addiction medicine fellowship. Dr. Jacobs has been a national expert, testifying on Capitol Hill on MDMA and prescription misuse and abuse. He has also served the State of Florida and its Drug Czars. He was a medical and scientific consultant to the U.S. Senate Crime and Drugs Subcommittee as well as the Department of Labor. Dr. Jacobs has testified and consulted for the DEA on safe prescribing of narcotic drugs and the model of ideal treatment programs. A gifted clinician and addiction medical director, Dr. Jacobs has been the medical director of nonprofit, profit, and academic chemical dependency and dual-diagnosis detoxification and stabilization, residential, partial hospitalization, intensive outpatient, and hospital programs. Over his career, he has served as attending physician, Chief Medical Officer, or Medical Director at a variety of facilities. He has been a monitoring physician for the Florida Board of Medicine and an evaluator and treatment provider for Florida Professionals Resource Network, Intervention Project for Nurses, and Lawyers Assistance programs. He has worked with the Duval County Adult and Adolescent Drug Courts and is a member of the Drug Free America Foundation Board of Directors. After his promotion to Associate Professor, he left academia and started NexStep Integrated Pain Care, Inc., a model outpatient program for the treatment of patients with both chronic pain and addiction disorders in Jacksonville. He returned to the University of Florida full time as Associate Professor in Psychiatry and Addiction Medicine and was co-chief of Pain Medicine in 2012. Dr. Jacobs was a principal or co-principal investigator for the Florida site of the pivotal trials for bupropion vs. placebo in smoking cessation as well as in pharmacological studies of naltrexone, depression, OCD, and anxiety. He is the author of peer-reviewed scientific papers, abstracts, textbook chapters (including the ASAM and APA definitive substance use volumes), and practice guidelines including highly cited studies on mitigating opioid abuse in chronic pain treatment, physician recovery, naltrexone, urine drug testing, and body mass index and alcohol use. Dr. Jacobs has returned to Georgia to become the first Chief of Addiction Medicine at The Medical College of Georgia/Georgia Regents University. He is also Medical Director of The Bluff Plantation as well as Chief Medical Officer for Georgia Detox & Recovery. He was recently invited to serve on the American Academy of Pain Medicine's Acute Pain Initiative and made keynote presentation at the 2014 Addiction Research & Therapy Conference on Pain and Addiction.

Customer Information, Answer Sheet, and Evaluation located on pages 131–136.

TEST QUESTIONS
#76563 ALCOHOL AND ALCOHOL USE DISORDERS

This is an open book test. Please record your responses on the Answer Sheet.
A passing grade of at least 80% must be achieved in order to receive credit for this course.

This 10 hour activity must be completed by May 31, 2024.

1. Approximately what percentage of all Americans older than 12 years of age report being current consumers of alcohol?
- *A) 30%*
- *B) 51%*
- *C) 75%*
- *D) 90%*

2. Binge drinking rates are highest for which of the following racial groups in America?
- *A) Asian*
- *B) Hispanic*
- *C) African/Black*
- *D) White/European*

3. What percentage of people who drink have experienced an alcohol-related problem?
- *A) 10%*
- *B) 20%*
- *C) 30%*
- *D) 40%*

4. The estimated annual cost of alcohol abuse in the United States in 2010 was approximately
- *A) $96 million.*
- *B) $1.85 billion.*
- *C) $90 billion.*
- *D) $249 billion.*

5. A standard drink is generally defined as
- *A) 1 ounce of 80-proof distilled spirits, 4 ounces of wine, or 8 ounces of beer.*
- *B) 1.5 ounces of 80-proof distilled spirits, 4 ounces of wine, or 8 ounces of beer.*
- *C) 1.5 ounces of 80-proof distilled spirits, 5 ounces of wine, or 12 ounces of beer.*
- *D) 1 ounce of 80-proof distilled spirits, 4 ounces of wine, or 12 ounces of beer.*

6. After recent alcohol consumption, all of the following are symptoms of intoxication, EXCEPT:
- *A) Bruxism*
- *B) Loss of coordination*
- *C) Unsteady walking or running*
- *D) Impairment of attention or memory*

7. Moderate drinking is defined as no more than
- *A) three drinks per day for men.*
- *B) two drinks per day for women.*
- *C) one drink per day for men and women.*
- *D) one drink per day for women and two drinks per day for men.*

8. Heavy drinking is defined as five or more drinks on the same occasion on each of 5 or more days in the past 30 days.
- *A) True*
- *B) False*

9. All of the following statements regarding the benefits of alcohol are TRUE, EXCEPT:
- *A) Light-to-moderate alcohol intake from beer, wine, or spirits is associated with a reduction in all-cause mortality.*
- *B) Those who abstain from alcohol have a decreased incidence of cardiovascular disease when compared to moderate consumers.*
- *C) Moderate alcohol intake reduces all-cause mortality primarily due to its ability to decrease cardiovascular diseases, especially coronary heart disease.*
- *D) The relationship between alcohol intake and reduced risk of coronary disease is generally accepted as a U-shaped curve of low-dose protective effect and higher doses producing a loss of protective effects and increased all-cause deaths.*

Test questions continue on next page ➔

10. Cardiovascular protection associated with moderate drinking occurs primarily through
- A) *vasodilation.*
- B) *accident prevention.*
- C) *blood lipids, such as HDL.*
- D) *Improvements in blood pressure.*

11. Which of the following is most likely to increase the risk of alcohol use disorder?
- A) *A history of alcohol use disorder in the person's spouse*
- B) *A history of alcohol use disorder in the person's brother*
- C) *A history of alcohol use disorder in the person's stepfather*
- D) *A history of alcohol use disorder in the person's biologic father*

12. Genetic factors appear to influence the level of response to alcohol, as measured by the intensity with which one reacts to a given quantity.
- A) *True*
- B) *False*

13. Which of the following is NOT a genetically influenced risk/protective factor for alcohol use disorder?
- A) *Low level of response to alcohol*
- B) *Increased right amygdala volume*
- C) *High levels of impulsivity/sensations seeking/disinhibition*
- D) *The alcohol metabolizing enzyme aldehyde dehydrogenase*

14. Researchers found that high EEG response to small amounts of alcohol may be associated with future development of alcohol use disorder.
- A) *True*
- B) *False*

15. All of the following conditions increase the risk of developing an alcohol use disorder, EXCEPT:
- A) *Lethargy*
- B) *Schizophrenia*
- C) *Bipolar disorder*
- D) *Antisocial personality disorder*

16. Among adults, heavy alcohol use is almost three times more common among women than men.
- A) *True*
- B) *False*

17. Which of the following is NOT one of the diagnostic criteria for alcohol use disorder in the DSM-5?
- A) *Little time is spent obtaining alcohol*
- B) *Craving, or a strong desire or urge to use alcohol*
- C) *Alcohol often taken in larger amounts or over a longer period than was intended*
- D) *Continued use despite having persistent problems caused or exacerbated by alcohol use*

18. Which symptom(s) have traditionally been the hallmarks of more severe alcohol use?
- A) *Intoxication*
- B) *Hallucinations*
- C) *Legal problems*
- D) *Withdrawal and tolerance*

19. Individuals with alcohol use disorder often experience a severe, potentially fatal withdrawal syndrome when they either abruptly discontinue or sharply reduce their alcohol consumption.
- A) *True*
- B) *False*

20. One does not need to be a daily drinker to meet criteria for alcohol use disorder.
- A) *True*
- B) *False*

21. All of the following are clues to alcohol use disorder, EXCEPT:
- A) *Broken bones*
- B) *Anxiety or panic*
- C) *Elevated LDH values*
- D) *Elevated mood and increased energy*

22. Among chronic heavy drinkers, the most common pre-existing condition in the liver prior to cirrhosis is
- A) *fatty liver.*
- B) *cholelithiasis.*
- C) *viral hepatitis.*
- D) *thrombosis of the portal vein.*

23. Alcoholic hepatitis is a condition that, when severe, is characterized by jaundice, fever, anorexia, and right upper-quadrant pain.
- A) *True*
- B) *False*

24. Increases in plasma levels of the amino acid homocysteine are
- A) *associated with a risk of cardiac and other vascular diseases.*
- B) *correlated with decreases in the levels of vitamins like folate, B12, and B6.*
- C) *twice as high in patients with chronic alcohol use disorder when compared with non-drinking controls.*
- D) *All of the above*

25. Excessive chronic alcohol use is associated with all of the following, EXCEPT:
- A) *Weight gain*
- B) *Sleep disorders*
- C) *Impaired body utilization of vitamins*
- D) *Low resistance to bacterial infections*

26. Alcohol affects numerous neurotransmitters in the brain. The systems affected that may have a genetic influence on alcohol use disorder include the
- A) *GABA system.*
- B) *serotonin system.*
- C) *dopamine system.*
- D) *All of the above*

27. Which of the following statements regarding women and alcohol consumption is TRUE?
- A) *Women produce a higher level of the enzymes required to break down alcohol.*
- B) *Women show the effects of alcohol less intensely and for shorter periods of time than men.*
- C) *Female hormones make women's bodies more susceptible to alcohol at certain times of the menstrual cycle.*
- D) *Women achieve lower concentrations of alcohol in the blood after drinking the same amounts of alcohol as men.*

28. The death rate among women with alcohol use disorder is 50% to 100% greater than that of men due to their increased risk of all of the following conditions, EXCEPT:
- A) *Suicide*
- B) *Cirrhosis*
- C) *HIV infection*
- D) *Alcohol-related accidents*

29. Excess fetal mortality secondary to drinking is most prevalent
- A) *during the first trimester of pregnancy.*
- B) *during the second trimester of pregnancy.*
- C) *during the third trimester of pregnancy.*
- D) *throughout pregnancy.*

30. The most commonly studied FASD is alcohol-related neurodevelopmental disorder (ARND).
- A) *True*
- B) *False*

31. Many children of alcoholics experience other family members as distant and noncommunicative and may be hampered by their inability to grow in developmentally healthy ways.
- A) *True*
- B) *False*

32. Alcohol may weaken brain mechanisms that normally restrain impulsive behaviors, including inappropriate aggression.
- A) *True*
- B) *False*

33. All of the following are TRUE about alcohol use disorder and depression, EXCEPT:
- A) *Both have the same etiology.*
- B) *If true co-occurring depression is left untreated in recovering alcoholics, relapse is common.*
- C) *As many as 80% of men and women with alcohol use disorder complain of depressive symptoms, and at least one-third meet the criteria for major depressive disorder.*
- D) *Treatment professionals have found that after two or three weeks of abstinence from alcohol, and with good nutrition, the temporary depressive effects of alcohol dissipate.*

34. The medication of choice for the treatment of patients with major depression and alcohol use disorder is usually
- A) *lithium.*
- B) *sertraline.*
- C) *venlafaxine.*
- D) *St. John's wort.*

Test questions continue on next page ➔

35. Alcohol consumption causes many of the signs and symptoms of anxiety and can even mimic panic attacks.
A) *True*
B) *False*

36. Neurobiology may make co-ingestion of alcohol and nicotine more rewarding than if either substance is taken alone.
A) *True*
B) *False*

37. The three questions on the Alcohol Use Disorders Identification Test-Concise (AUDIT-C) inquire about frequency of alcohol use, typical amount of alcohol use, and occasions of heavy use.
A) *True*
B) *False*

38. Certain questions are useful in screening to determine presence of alcohol use disorder. One such set of questions is known as the CAGE questionnaire. The CAGE acronym stands for
A) *Confusion, Agitation, S3 Gallop, Edema.*
B) *Cut down, Annoyed, Guilty, Eye-opener.*
C) *Chloral hydrate, Alcohol, Glutethimide, Ethchlorvynol.*
D) *un-Controllable urge to drink, un-Able to limit intake, un-Grateful for help to stop drinking, un-Excited about treatment.*

39. Laboratory tests that can be used to identify chronic alcohol intake include
A) *red blood cell index.*
B) *alanine aminotransferase (ALT).*
C) *aspartate aminotransferase (AST).*
D) *All of the above*

40. All of the following are common elements of brief intervention, EXCEPT:
A) *Advice to change*
B) *Feedback of personal risk*
C) *Responsibility of the patient*
D) *Confrontational counseling style*

41. Motivational interviewing therapists emphasize personal responsibility and support their patients' feelings of self-efficacy for making a change in their drinking.
A) *True*
B) *False*

42. Twelve-step programs are useful in which of the following phases of alcohol abuse treatment?
A) *Pretreatment*
B) *Phase 1*
C) *Phase 2*
D) *None of the above*

43. Which of the following is NOT true about alcohol withdrawal symptoms?
A) *Once these symptoms are treated, relapse is unlikely.*
B) *Pharmacologic management of acute alcohol withdrawal generally involves the use of benzodiazepines.*
C) *Symptoms include sweating, rapid heartbeat, hypertension, tremors, anorexia, insomnia, agitation, anxiety, nausea, and vomiting.*
D) *As many as 15% of individuals with alcohol use disorder progress from the autonomic hyperactivity and agitation common to withdrawal from other drugs to seizures and, for some, even death.*

44. Research has shown that the longer people stay in treatment, remain sober, and are actively committed to sobriety, the more likely it is that they will maintain sobriety.
A) *True*
B) *False*

45. A person could be said to enter the maintenance and growth stage of alcohol use disorder treatment when he or she is comfortable with relapse-prevention skills and has had a chance to rely on them to stay sober.
A) *True*
B) *False*

46. All of the following statements about Alcoholics Anonymous are generally true, EXCEPT:
A) *There are no dues.*
B) *Anyone can become a member.*
C) *Belief in God is a prerequisite to join.*
D) *Research has shown this approach to be effective.*

47. Cognitive-behavioral therapies (CBTs)
A) *can be summarized as "recognize, avoid, and cope."*
B) *are organized around a functional analysis of substance use.*
C) *are based on social learning and behavioral theories of drug abuse.*
D) *All of the above*

48. Which of the following is a basic principle of cognitive-behavioral therapy?
A) *Practice is needed for mastery of skills.*
B) *Basic skills should be mastered before more complex ones are given.*
C) *Material presented by the therapist should be matched to patient needs.*
D) *All of the above*

49. In behavioral therapy, substance use is believed to develop from changes in behavior and a reduction in opportunities for reinforcement of positive experience.
A) *True*
B) *False*

50. Research provides examples, but treatment providers may need to be creative in discovering reinforcers for patients with alcohol use disorder that can be used for contingency management in their own clinical settings.
A) *True*
B) *False*

51. Family therapy is not an effective treatment for alcohol use disorder, especially in adolescents.
A) *True*
B) *False*

52. Research has shown that medications for alcohol use disorder are most effective when used in as monotherapy.
A) *True*
B) *False*

53. Naltrexone has been shown to reduce alcohol relapses, decrease the likelihood that a slip becomes a relapse, and decrease the total amount of drinking.
A) *True*
B) *False*

54. Which of the following is a common side effect associated with naltrexone?
A) *Dizziness*
B) *Weight gain*
C) *Difficulty breathing*
D) *Decreased interest in sex*

55. Coerced or court-mandated treatment for alcohol use disorder is never effective.
A) *True*
B) *False*

Be sure to transfer your answers to the Answer Sheet located on page 132.
DO NOT send these test pages to NetCE. Retain them for your records.
PLEASE NOTE: Your postmark or facsimile date will be used as your test completion date.

Course Availability List

These courses may be ordered by mail on the Customer Information form located on page 131.
We encourage you to **GO GREEN**. Access your courses **online** or download as an **eBook** to save paper and **receive a discount** or sign up for **One Year of Unlimited Online CE for only $79!** Additional titles are also available.
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Purpose: Although work stress and burnout are present in every occupation, human service professionals, who spend their work lives attending to the needs of others, are at the highest risk. The purpose of this course is to orient the participants to the ramifications of not taking care of themselves and to promote strategies for enhancing health and well-being as individuals while working as professionals.
Faculty: Jamie Marich, PhD, LPCC-S, LICDC-CS, REAT, RYT-500, RMT
Audience: This course is designed for helping professionals of any kind, including counselors, social workers, therapists, and chemical dependency counselors, who require the tools necessary to address issues of work-life balance.

THE BISEXUAL CLIENT: TRAUMA-FOCUSED CARE

#71501 • 5 ASWB/APA/NAADAC Hours, 2.5 NBCC Hours

Book By Mail – $33 • **ONLINE – $25**

Purpose: The purpose of this course is to provide members of the interdisciplinary healthcare team with the knowledge and resources necessary to improve the care provided to bisexual or sexually fluid individuals.
Faculty: Jamie Marich, PhD, LPCC-S, LICDC-CS, REAT, RYT-500, RMT
Audience: This course is designed for behavioral and mental health professionals of any kind who work with clients on a regular basis or who teach/supervise those working with clients who identify as bisexual or non-binary.

PROMOTING THE HEALTH OF GENDER AND SEXUAL MINORITIES

#71793 • 5 ASWB/APA Hours, 2.5 NBCC Hours

Book By Mail – $33 • **ONLINE – $25**

Purpose: More individuals who identify as gender and sexual minorities and their families want culturally appropriate information as well as support and referral. The purpose of this course is to provide mental and behavioral health professionals with strategies that promote cultural competency when treating and caring for these patients, supporting the concept of patient-centered care.
Faculty: Leslie Bakker, RN, MSN
Audience: This course is designed for members of the interdisciplinary team, including social workers, counselors, and therapists, working in all practice settings.

BORDERLINE PERSONALITY DISORDER

#76221 • 15 ASWB/APA/NAADAC Hours, 6 NBCC Hours

Book By Mail – $83 • **ONLINE – $75**

Purpose: The purpose of this course is to provide behavioral and mental health professionals with the information necessary to assess and treat patients with borderline personality disorder effectively and safely, while minimizing their own stress level and clinic disruption these patients are capable of producing.
Faculty: Mark Rose, BS, MA, LP
Audience: This course is designed for counselors, therapists, social workers, and other mental health professionals who are involved in the care of patients with borderline personality disorder.

MASS SHOOTERS AND EXTREMIST VIOLENCE: MOTIVES, PATHS, AND PREVENTION

#76431 • 15 ASWB/APA/NAADAC Hours, 5 NBCC Hours

Book By Mail – $83 • **ONLINE – $75**

Purpose: The purpose of this course is to provide health and mental health professionals with the knowledge and skills necessary to identify persons on paths to extreme violence and to intervene to prevent mass shooting events.
Faculty: Mark Rose, BS, MA, LP
Audience: This course is designed for all healthcare professionals who may intervene to identify persons at risk for committing acts of mass violence.

SUICIDE ASSESSMENT AND PREVENTION

#76441 • 6 ASWB/APA/NAADAC Hours, 2 NBCC Hours

Book By Mail – $38 • **ONLINE – $30**

Purpose: The purpose of this course is to provide behavioral and mental health professionals with an appreciation of the impact of depression and suicide on patient health as well as the skills necessary to identify and intervene for patients at risk for suicide.
Faculty: Mark Rose, BS, MA
Audience: This course is designed for social workers, therapists, counselors, and other professionals who may identify persons at risk for suicide and intervene to prevent or manage suicidality.
Special Approval: This course is meets the Pennsylvania requirement for 1 hour in suicide prevention.

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Course Availability List *(Cont'd)*

CLINICAL SUPERVISION: A PERSON-CENTERED APPROACH

#76863 • 10 ASWB Hours, 3 NBCC Hours

Book By Mail – $58 • **ONLINE – $50**

Purpose: The purpose of this course is to help supervisors or potential supervisors in the human services or helping professions to more effectively work with those they are entrusted to supervise.

Faculty: Jamie Marich, PhD, LPCC-S, LICDC-CS, REAT, RYT-200, RMT

Audience: This course is designed for professional clinicians, including counselors, social workers, therapists, psychologists, and pastoral counselors, who supervise others, clinically and/or administratively.

Special Approval: This course is designed to meet requirements for supervision education.

RACIAL TRAUMA: THE AFRICAN AMERICAN EXPERIENCE

#76920 • 5 ASWB/APA/NAADAC Hours, 1.5 NBCC Hours

Book By Mail – $33 • **ONLINE – $25**

Purpose: The purpose of this course is to provide mental and behavioral health professionals with the knowledge and skills necessary to provide trauma-informed care to African American clients.

Faculty: Tanika Johnson, EdD, MA, LPC-MHSP, LMHC, NCC, BC-TMH, CCTP

Audience: This course is designed for mental and behavioral health professionals who provide services to African American clients who have experienced racial trauma.

DOMESTIC AND SEXUAL VIOLENCE

#77791 • 5 ASWB/APA/NAADAC Hours, 2 NBCC Hours

Book By Mail – $33 • **ONLINE – $25**

Purpose: The purpose of this course is to provide professionals with the skills and confidence necessary to identify victims of sexual or domestic violence and to intervene appropriately and effectively.

Faculty: Alice Yick Flanagan, PhD, MSW; John M. Leonard, MD

Audience: This course is designed for a wide range of behavioral and mental health professionals, including social workers, mental health counselors, and marriage and family therapists.

FAMILIES OF PATIENTS WITH CHRONIC ILLNESS

#91693 • 10 ASWB Hours, 3.5 NBCC Hours

Book By Mail – $58 • **ONLINE – $50**

Purpose: The purpose of this course is to increase the knowledge base of social workers, physicians, nurses, marriage and family therapists, and other allied healthcare professionals who work with chronically ill patients and their families, in order to effectively address the impact of chronic illness on the entire family system.

Faculty: Alice Yick Flanagan, PhD, MSW

Audience: This course is designed for physicians, nurses, social workers, marriage and family therapists, and any healthcare professionals involved in the care of chronically ill patients.

MEDICAL MARIJUANA AND OTHER CANNABINOIDS

#95172 • 5 ASWB/APA/NAADAC Hours, 3.5 NBCC Hours

Book By Mail – $33 • **ONLINE – $25**

Purpose: The purpose of this course is to provide healthcare professionals with unbiased and evidence-based information regarding the use of marijuana and other cannabinoids for the treatment of medical conditions.

Faculty: Mark Rose, BS, MA, LP

Audience: This course is designed for physicians, nurses, physician assistants, pharmacists, social workers, therapists, and counselors in the primary care setting involved in the care of patients who use or who are candidates for the therapeutic use of marijuana or other cannabinoids.

OBSESSIVE-COMPULSIVE DISORDER

#96473 • 4 ASWB/APA Hours, 1.5 NBCC Hours

Book By Mail – $28 • **ONLINE – $20**

Purpose: The purpose of this course is to provide healthcare professionals with a basic understanding of obsessive-compulsive disorder (OCD), its clinical manifestations, and basic treatment approaches in order to facilitate optimum patient care and outcomes.

Faculty: John J. Whyte, MD, MPH

Audience: This course is designed for healthcare professionals working with adults or adolescent patients who exhibit symptoms of obsessive-compulsive disorder.

PSYCHEDELIC MEDICINE AND INTERVENTIONAL PSYCHIATRY

#96790 • 10 ASWB/APA Hours, 3 NBCC Hours

Book By Mail – $58 • **ONLINE – $50**

Purpose: The purpose of this course is to provide medical and mental health professionals with the knowledge and skills necessary to effectively treat mental disorders using emerging psychedelic and interventional techniques.

Faculty: Mark S. Gold, MD, DFASAM, DLFAPA

Audience: The course is designed for all members of the interprofessional team, including physicians, physician assistants, nurses, and mental health professionals, involved in caring for patients with mental disorders resistant to traditional treatment approaches.

METHAMPHETAMINE USE DISORDER

#96953 • 5 ASWB/APA/NAADAC Hours, 2 NBCC Hours

Book By Mail – $33 • **ONLINE – $25**

Purpose: Methamphetamine use has risen alarmingly, reaching epidemic proportions in some regions. The purpose of this course is to provide a current, evidence-based overview of methamphetamine abuse and dependence and its treatment in order to allow healthcare professionals to more effectively identify, treat, or refer patients who use methamphetamine.

Faculty: Mark Rose, BS, MA, LP

Audience: This course is designed for health and mental health professionals who are involved in the evaluation or treatment of persons who use methamphetamine.

Prices are subject to change. Visit www.NetCE.com for a list of current prices.

Course Availability List *(Cont'd)*

OPIOID USE DISORDER

#96963 • 10 ASWB/APA/NAADAC Hours, 4 NBCC Hours

Book By Mail – $58 • **ONLINE – $50**

Purpose: Practice guidance for opioid use disorder in primary care has not kept pace with rapid, profound changes in this area, leaving healthcare professionals with outdated and incomplete information to guide the clinical management of opioid use disorder and related morbidity. The purpose of this course is to close this gap to allow healthcare professionals to provide the best, evidence-based care to patients with opioid use disorder.

Faculty: Mark Rose, BS, MA

Audience: This course is designed for medical and mental healthcare providers, including physicians, nurses, pharmacy professionals, social workers, and counselors/therapists who may be involved in identifying or treating opioid use disorder.

Special Approval: This course is designed to meet requirements for substance abuse education.

SEXUAL ASSAULT

Update

#97022 • 3 ASWB Hours, 1 NBCC Hour

Book By Mail – $23 • **ONLINE – $15**

Purpose: The purpose of this course is to address knowledge gaps, enhance clinical and forensic examination skills, highlight management objectives, and improve outcomes for victims of sexual assault.

Faculty: John M. Leonard, MD

Audience: This course is intended for physicians, nurses, mental health professionals, and other healthcare professionals who may be called upon to provide care to victims of sexual assault.

CULTURAL COMPETENCE: AN OVERVIEW

NEW!

#97430 • 2 ASWB/APA Hours, 1.5 NBCC Hours

Book By Mail – $23 • **ONLINE – $15**

Purpose: The purpose of this course is to provide members of the interprofessional healthcare team with the knowledge, skills, and strategies necessary to provide culturally competent and responsive care to all patients.

Faculty: Alice Yick Flanagan, PhD, MSW

Audience: This course is designed for all members of the interprofessional healthcare team.

CHILD ABUSE IN ETHNIC MINORITY AND IMMIGRANT COMMUNITIES

#97583 • 10 ASWB Hours, 5 NBCC Hours

Book By Mail – $58 • **ONLINE – $50**

Purpose: The purpose of this course is to facilitate appropriate and culturally sensitive responses on the part of allied healthcare professionals to cases of child abuse and neglect.

Faculty: Alice Yick Flanagan, PhD, MSW

Audience: This course is designed for physicians, nurses, social workers, therapists, mental health counselors, and other allied health professionals who may intervene in suspected cases of child abuse.

ELDER ABUSE: CULTURAL CONTEXTS AND IMPLICATIONS

#97823 • 5 ASWB Hours, 4 NBCC Hours

Book By Mail – $33 • **ONLINE – $25**

Purpose: The purpose of this course is to increase the knowledge base of social workers, nurses, physicians and other allied health professionals about elder abuse, assessment, and intervention. This curriculum will focus on abuse against elders in domestic settings perpetrated by family members.

Faculty: Alice Yick Flanagan, PhD, MSW

Audience: This course is targeted to physicians, nurses, social workers, and other allied health professionals who may identify and intervene in cases of elder abuse.

AGING AND LONG-TERM CARE

#99353 • 3 ASWB Hours, 2.5 NBCC Hours

Book By Mail – $23 • **ONLINE – $15**

Purpose: The purpose of this course is to provide the tools necessary for social workers, counselors, mental health professionals, and allied health professionals to successfully assess and care for older adults, an increasingly large portion of the U.S. population.

Faculty: Alice Yick Flanagan, PhD, MSW

Audience: This course is designed for nurses, social workers, counselors, mental health professionals, and allied health professionals involved in the care of older adults.

Prices are subject to change. Visit www.NetCE.com for a list of current prices.

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	76080	Demystifying Dissociation: Principles, Best Practice, and Clinical Approaches / 10 Hours	$50
	76563	Alcohol and Alcohol Use Disorders / 10 Hours	$50

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☐	71501	The Bisexual Client: Trauma-Focused Care / 5	$33
☐	71793	Promoting the Health of Gender & Sexual Minorities / 5	$33
☐	76221	Borderline Personality Disorder / 15	$83
☐	76431	Mass Shooters and Murderers: Motives and Paths / 15	$83
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☐	76920	Racial Trauma: The African American Experience / 5	$33
☐	77791	Domestic and Sexual Violence / 5	$33
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☐	96790	Psychedelic Medicine and Interventional Psychiatry / 10	$58
☐	96953	Methamphetamine Use Disorder / 5	$33
☐	96963	Opioid Use Disorder / 10	$58
☐	97022	Sexual Assault / 3	$23
☐	97430	Cultural Competence: An Overview / 2	$23
☐	97583	Child Abuse in Ethnic Minority & Immigrant Comm. / 10	$58
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Answer Sheet

(Completion of this form is mandatory)

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- Darken only one circle per question.
- Use pen or pencil; please refrain from using markers.
- **Information on the Customer Information form must be completed.**

#97542 CHILD ABUSE IDENTIFICATION & REPORTING: THE PENNSYLVANIA REQUIREMENT—3 HOURS

Please refer to pages 17–18.

Expiration Date: 07/31/25 *May be taken individually for $15*

	A	B	C	D		A	B	C	D
1.	❍	❍	❍	❍	6.	❍	❍	❍	❍
2.	❍	❍	❍	❍	7.	❍	❍	❍	❍
3.	❍	❍	❍	❍	8.	❍	❍	❍	❍
4.	❍	❍	❍	❍	9.	❍	❍	❍	❍
5.	❍	❍	❍	❍	10.	❍	❍	❍	❍

#97000 IMPLICIT BIAS IN HEALTH CARE—3 HOURS

Please refer to pages 32–33.

Expiration Date: 08/31/24 *May be taken individually for $15*

	A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D
1.	❍	❍	❍	❍	6.	❍	❍	❍	❍	11.	❍	❍	❍	❍	16.	❍	❍	❍	❍
2.	❍	❍	❍	❍	7.	❍	❍	❍	❍	12.	❍	❍	❍	❍	17.	❍	❍	❍	❍
3.	❍	❍	❍	❍	8.	❍	❍	❍	❍	13.	❍	❍	❍	❍	18.	❍	❍	❍	❍
4.	❍	❍	❍	❍	9.	❍	❍	❍	❍	14.	❍	❍	❍	❍	19.	❍	❍	❍	❍
5.	❍	❍	❍	❍	10.	❍	❍	❍	❍	15.	❍	❍	❍	❍	20.	❍	❍	❍	❍

#72253 CHILDHOOD OBESITY: THE ROLE OF THE MENTAL HEALTH PROFESSIONAL—4 HOURS

Please refer to pages 49–50.

Expiration Date: 11/30/23 *May be taken individually for $20*

	A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D
1.	❍	❍	❍	❍	6.	❍	❍	❍	❍	11.	❍	❍	❍	❍	16.	❍	❍	❍	❍	21.	❍	❍	❍	❍
2.	❍	❍	❍	❍	7.	❍	❍	❍	❍	12.	❍	❍	❍	❍	17.	❍	❍	❍	❍	22.	❍	❍	❍	❍
3.	❍	❍	❍	❍	8.	❍	❍	❍	❍	13.	❍	❍	❍	❍	18.	❍	❍	❍	❍	23.	❍	❍	❍	❍
4.	❍	❍	❍	❍	9.	❍	❍	❍	❍	14.	❍	❍	❍	❍	19.	❍	❍	❍	❍	24.	❍	❍	❍	❍
5.	❍	❍	❍	❍	10.	❍	❍	❍	❍	15.	❍	❍	❍	❍	20.	❍	❍	❍	❍	25.	❍	❍	❍	❍

#76080 DEMYSTIFYING DISSOCIATION: PRINCIPLES, BEST PRACTICES, & CLINICAL APPROACHES—10 HOURS

Please refer to pages 77–82.

Expiration Date: 05/31/24 *May be taken individually for $50*

	A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D
1.	❍	❍	❍	❍	16.	❍	❍	❍	❍	31.	❍	❍	❍	❍	46.	❍	❍	❍	❍
2.	❍	❍	❍	❍	17.	❍	❍	❍	❍	32.	❍	❍	❍	❍	47.	❍	❍	❍	❍
3.	❍	❍	❍	❍	18.	❍	❍	❍	❍	33.	❍	❍	❍	❍	48.	❍	❍	❍	❍
4.	❍	❍	❍	❍	19.	❍	❍	❍	❍	34.	❍	❍	❍	❍	49.	❍	❍	❍	❍
5.	❍	❍	❍	❍	20.	❍	❍	❍	❍	35.	❍	❍	❍	❍	50.	❍	❍	❍	❍
6.	❍	❍	❍	❍	21.	❍	❍	❍	❍	36.	❍	❍	❍	❍	51.	❍	❍	❍	❍
7.	❍	❍	❍	❍	22.	❍	❍	❍	❍	37.	❍	❍	❍	❍	52.	❍	❍	❍	❍
8.	❍	❍	❍	❍	23.	❍	❍	❍	❍	38.	❍	❍	❍	❍	53.	❍	❍	❍	❍
9.	❍	❍	❍	❍	24.	❍	❍	❍	❍	39.	❍	❍	❍	❍	54.	❍	❍	❍	❍
10.	❍	❍	❍	❍	25.	❍	❍	❍	❍	40.	❍	❍	❍	❍	55.	❍	❍	❍	❍
11.	❍	❍	❍	❍	26.	❍	❍	❍	❍	41.	❍	❍	❍	❍					
12.	❍	❍	❍	❍	27.	❍	❍	❍	❍	42.	❍	❍	❍	❍					
13.	❍	❍	❍	❍	28.	❍	❍	❍	❍	43.	❍	❍	❍	❍					
14.	❍	❍	❍	❍	29.	❍	❍	❍	❍	44.	❍	❍	❍	❍					
15.	❍	❍	❍	❍	30.	❍	❍	❍	❍	45.	❍	❍	❍	❍					

#76563 ALCOHOL AND ALCOHOL USE DISORDER—10 HOURS

Please refer to pages 123–127.

Expiration Date: 05/31/24 *May be taken individually for $50*

	A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D
1.	❍	❍	❍	❍	16.	❍	❍	❍	❍	31.	❍	❍	❍	❍	46.	❍	❍	❍	❍
2.	❍	❍	❍	❍	17.	❍	❍	❍	❍	32.	❍	❍	❍	❍	47.	❍	❍	❍	❍
3.	❍	❍	❍	❍	18.	❍	❍	❍	❍	33.	❍	❍	❍	❍	48.	❍	❍	❍	❍
4.	❍	❍	❍	❍	19.	❍	❍	❍	❍	34.	❍	❍	❍	❍	49.	❍	❍	❍	❍
5.	❍	❍	❍	❍	20.	❍	❍	❍	❍	35.	❍	❍	❍	❍	50.	❍	❍	❍	❍
6.	❍	❍	❍	❍	21.	❍	❍	❍	❍	36.	❍	❍	❍	❍	51.	❍	❍	❍	❍
7.	❍	❍	❍	❍	22.	❍	❍	❍	❍	37.	❍	❍	❍	❍	52.	❍	❍	❍	❍
8.	❍	❍	❍	❍	23.	❍	❍	❍	❍	38.	❍	❍	❍	❍	53.	❍	❍	❍	❍
9.	❍	❍	❍	❍	24.	❍	❍	❍	❍	39.	❍	❍	❍	❍	54.	❍	❍	❍	❍
10.	❍	❍	❍	❍	25.	❍	❍	❍	❍	40.	❍	❍	❍	❍	55.	❍	❍	❍	❍
11.	❍	❍	❍	❍	26.	❍	❍	❍	❍	41.	❍	❍	❍	❍					
12.	❍	❍	❍	❍	27.	❍	❍	❍	❍	42.	❍	❍	❍	❍					
13.	❍	❍	❍	❍	28.	❍	❍	❍	❍	43.	❍	❍	❍	❍					
14.	❍	❍	❍	❍	29.	❍	❍	❍	❍	44.	❍	❍	❍	❍					
15.	❍	❍	❍	❍	30.	❍	❍	❍	❍	45.	❍	❍	❍	❍					

NetCE
A TRC Healthcare Company

Evaluation

(Completion of this form is mandatory)

PAMHP22

Last Name _____ First Name _____ MI _____

State _____ License # _____ Expiration Date _____

To receive continuing education credit, completion of this Evaluation is mandatory.

Compliance with Association of Social Work Boards (ASWB) standards requires that providers collect a course evaluation from the participant that includes assessment of the content, delivery method, and achievement of the individual learning objectives.

This page is perforated for easy removal.

Please read the following questions and choose the most appropriate answer for each course completed.

1. Was the course content new or review?
2. How much time did you spend on this activity, including the questions?
3. Would you recommend this course to your peers?
4. Did the course content support the stated course objective?
5. Did the course content demonstrate the author's knowledge of the subject and the current state of scientific knowledge?
6. Was the course content free of bias?
7. Before completing this course, did you identify the necessity for education on the topic to improve your professional practice?
8. Have you achieved all of the stated learning objectives of this course?
9. Has what you think or feel about this topic changed?
10. Was this course appropriate for your education, experience, and licensure level?
11. Was the administration of the program to your satisfaction?
12. Were the materials appropriate to the subject matter?
13. Are you more confident in your ability to provide client care after completing this course?
14. Do you plan to make changes in your practice as a result of this course content?
15. If you requested assistance for a disability or a problem, was your request addressed respectfully and in a timely manner?

In accordance with the reporting requirements of Act 31, please provide the following information for course #97542:

16. Please provide the last four digits of your social security number.
17. Please provide your date of birth.

#97542
PA Child Abuse
3 Hours

1. ☐ New ☐ Review
2. _____ Hours
3. ☐ Yes ☐ No
4. ☐ Yes ☐ No
5. ☐ Yes ☐ No
6. ☐ Yes ☐ No
7. ☐ Yes ☐ No
8. ☐ Yes ☐ No
9. ☐ Yes ☐ No
10. ☐ Yes ☐ No
11. ☐ Yes ☐ No
12. ☐ Yes ☐ No
13. ☐ Yes ☐ No
14. ☐ Yes ☐ No
15. ☐ Yes ☐ No ☐ N/A
16. ___ ___ ___ ___
17. ___/___/_____ (mm/dd/yyyy)

#97000
Implicit Bias in Health Care
3 Hours

1. ☐ New ☐ Review
2. _____ Hours
3. ☐ Yes ☐ No
4. ☐ Yes ☐ No
5. ☐ Yes ☐ No
6. ☐ Yes ☐ No
7. ☐ Yes ☐ No
8. ☐ Yes ☐ No
9. ☐ Yes ☐ No
10. ☐ Yes ☐ No
11. ☐ Yes ☐ No
12. ☐ Yes ☐ No
13. ☐ Yes ☐ No
14. ☐ Yes ☐ No
15. ☐ Yes ☐ No ☐ N/A

#72253
Childhood Obesity
4 Hours

1. ☐ New ☐ Review
2. _____ Hours
3. ☐ Yes ☐ No
4. ☐ Yes ☐ No
5. ☐ Yes ☐ No
6. ☐ Yes ☐ No
7. ☐ Yes ☐ No
8. ☐ Yes ☐ No
9. ☐ Yes ☐ No
10. ☐ Yes ☐ No
11. ☐ Yes ☐ No
12. ☐ Yes ☐ No
13. ☐ Yes ☐ No
14. ☐ Yes ☐ No
15. ☐ Yes ☐ No ☐ N/A

#97542 Child Abuse Identification and Reporting: The Pennsylvania Requirement — Do you have any additional comments or suggestions?

_____

_____

#97000 Implicit Bias in Health Care — Do you have any additional comments or suggestions?_____

_____

_____

#72253 Childhood Obesity: The Role of the Mental Health Professional — Do you have any additional comments or suggestions? _____

_____

_____

Signature _____

Signature required to receive continuing education credit.

PAMHP22

Evaluation

(Completion of this form is mandatory)

Last Name _____ First Name _____ MI _____

State _____ License # _____ Expiration Date _____

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11. Was the administration of the program to your satisfaction?
12. Were the materials appropriate to the subject matter?
13. Are you more confident in your ability to provide client care after completing this course?
14. Do you plan to make changes in your practice as a result of this course content?
15. If you requested assistance for a disability or a problem, was your request addressed respectfully and in a timely manner?

#76080
Demystifying Dissociation
10 Hours

1. ☐ New ☐ Review
2. _____ Hours
3. ☐ Yes ☐ No
4. ☐ Yes ☐ No
5. ☐ Yes ☐ No
6. ☐ Yes ☐ No
7. ☐ Yes ☐ No
8. ☐ Yes ☐ No
9. ☐ Yes ☐ No
10. ☐ Yes ☐ No
11. ☐ Yes ☐ No
12. ☐ Yes ☐ No
13. ☐ Yes ☐ No
14. ☐ Yes ☐ No
15. ☐ Yes ☐ No ☐ N/A

#76563
Alcohol and Alcohol Use Disorders
10 Hours

1. ☐ New ☐ Review
2. _____ Hours
3. ☐ Yes ☐ No
4. ☐ Yes ☐ No
5. ☐ Yes ☐ No
6. ☐ Yes ☐ No
7. ☐ Yes ☐ No
8. ☐ Yes ☐ No
9. ☐ Yes ☐ No
10. ☐ Yes ☐ No
11. ☐ Yes ☐ No
12. ☐ Yes ☐ No
13. ☐ Yes ☐ No
14. ☐ Yes ☐ No
15. ☐ Yes ☐ No ☐ N/A

#76080 Demystifying Dissociation: Principles, Best Practices, and Clinical Approaches — Do you have any additional comments or suggestions? _____

#76563 Alcohol and Alcohol Use Disorder — Do you have any additional comments or suggestions? _____

Signature _____

Signature required to receive continuing education credit.

Evaluation *(Continued)*

Last Name _____ First Name _____ MI _____

Check the letter grade which best represents each of the following statements.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Learning Objectives (After completing this course, I am able to):					
#97542 CHILD ABUSE IDENTIFICATION AND REPORTING: THE PENNSYLVANIA REQUIREMENT—3 HOURS (Course expires 07/31/25)					
• Summarize the historical context of child abuse.	☐ A	☐ B	☐ C	☐ D	☐ F
• Discuss the emergence of the child welfare system in Pennsylvania.	☐ A	☐ B	☐ C	☐ D	☐ F
• Define child abuse and neglect and identify the different forms of child abuse and neglect.	☐ A	☐ B	☐ C	☐ D	☐ F
• Discuss the scope of child abuse and neglect in the United States and specifically in Pennsylvania.	☐ A	☐ B	☐ C	☐ D	☐ F
• Review the mandatory reporting process and mandated reporters in the state of Pennsylvania, including possible barriers to reporting suspected cases of child abuse	☐ A	☐ B	☐ C	☐ D	☐ F
#97000 IMPLICIT BIAS IN HEALTH CARE—3 HOURS (Course expires 08/31/24)					
• Define implicit and explicit biases and related terminology.	☐ A	☐ B	☐ C	☐ D	☐ F
• Evaluate the strengths and limitations of the Implicit Association Test.	☐ A	☐ B	☐ C	☐ D	☐ F
• Describe how different theories explain the nature of implicit biases, and outline the consequences of implicit biases.	☐ A	☐ B	☐ C	☐ D	☐ F
• Discuss strategies to raise awareness of and mitigate or eliminate one's implicit biases.	☐ A	☐ B	☐ C	☐ D	☐ F
#72253 CHILDHOOD OBESITY: THE ROLE OF THE MENTAL HEALTH PROFESSIONAL—4 HOURS (Course expires 11/30/23)					
• Outline the epidemiology and consequences of childhood overweight and obesity.	☐ A	☐ B	☐ C	☐ D	☐ F
• Distinguish various obesity trajectories and their differential diagnostic and treatment issues.	☐ A	☐ B	☐ C	☐ D	☐ F
• Evaluate salient factors when assessing the overweight or obese child, including components of the interview process.	☐ A	☐ B	☐ C	☐ D	☐ F
• Recommend interventions based on the category of childhood overweight/obesity.	☐ A	☐ B	☐ C	☐ D	☐ F
• Describe importance of collaborating with the multidisciplinary team when caring for the overweight or obese child.	☐ A	☐ B	☐ C	☐ D	☐ F

Signature _____

Signature required to receive continuing education credit.

Evaluation *(Continued)*

Last Name _____ First Name _____ MI _____

Check the letter grade which best represents each of the following statements.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

Learning Objectives (After completing this course, I am able to):

#76080 DEMYSTIFYING DISSOCIATION: PRINCIPLES, BEST PRACTICES, & CLINICAL APPROACHES—10 HOURS (Course expires 05/31/24)

• Define dissociation in a trauma-focused manner.	☐ A	☐ B	☐ C	☐ D	☐ F
• Describe the impact and manifestations of trauma and dissociation on the brain.	☐ A	☐ B	☐ C	☐ D	☐ F
• Identify common myths about working with dissociative clients in psychotherapy, including historical roots.	☐ A	☐ B	☐ C	☐ D	☐ F
• Outline diagnostic criteria for dissociative disorders.	☐ A	☐ B	☐ C	☐ D	☐ F
• Describe the Dissociative Profile exercise.	☐ A	☐ B	☐ C	☐ D	☐ F
• Describe the screening tools and inventories available for use in clinical settings regarding dissociation.	☐ A	☐ B	☐ C	☐ D	☐ F
• Apply personal metaphor and parts work in the care of clients with dissociation.	☐ A	☐ B	☐ C	☐ D	☐ F
• Outline the similarities between addiction and dissociation and how they can be framed.	☐ A	☐ B	☐ C	☐ D	☐ F
• Discuss key components of successful treatment planning for clients with dissociation.	☐ A	☐ B	☐ C	☐ D	☐ F
• Implement approaches for early and later phases of dissociative disorder treatment.	☐ A	☐ B	☐ C	☐ D	☐ F

#76563 ALCOHOL AND ALCOHOL USE DISORDERS—10 HOURS (Course expires 05/31/24)

• Review facts about the history, costs, and prevalence of alcohol use and abuse.	☐ A	☐ B	☐ C	☐ D	☐ F
• Define moderate drinking and take a history of alcohol use as defined by the standard drink equivalency.	☐ A	☐ B	☐ C	☐ D	☐ F
• Identify benefits reported in the literature for moderate alcohol consumption.	☐ A	☐ B	☐ C	☐ D	☐ F
• Distinguish between genetic and environmental risk and protective factors for developing alcohol problems.	☐ A	☐ B	☐ C	☐ D	☐ F
• Describe clinical characteristics of alcohol use disorder, intoxication, and withdrawal.	☐ A	☐ B	☐ C	☐ D	☐ F
• List complications associated with alcohol use disorders.	☐ A	☐ B	☐ C	☐ D	☐ F
• Recognize mental problems associated with alcohol use disorders.	☐ A	☐ B	☐ C	☐ D	☐ F
• Discuss screening instruments for detecting alcohol use disorders, including considerations for non-English-proficient patients.	☐ A	☐ B	☐ C	☐ D	☐ F
• Explain brief intervention efficacy and techniques.	☐ A	☐ B	☐ C	☐ D	☐ F
• Describe and evaluate treatment modalities.	☐ A	☐ B	☐ C	☐ D	☐ F

Signature _____

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