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Mental Health in the Pediatric Population



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Section 1: Introduction

“Mental health is an important part of children’s overall health and well-being. Mental health includes children’s mental, emotional, and behavioral well-being. It affects how children think, feel, and act. It also plays a role in how children handle stress, relate to others, and make healthy choices.” -Centers for Disease Control (2023a)

Children’s mental health affects how they function at school and in society. All children struggle with inattentiveness, bad moods, or excessive worry at some point, but for a growing number of children in the United States, these struggles are more serious. In a 2022 National Survey of Children’s Health, 25.8% of children ages 3-17 years old in the United States were reported as having one or more mental, emotional, developmental, or behavioral problems, including anxiety, depression, Oppositional Defiance Disorder (ODD), Conduct Disorder (CD), Attention-Deficit/Hyperactivity Disorder (ADHD), Tourette Syndrome, Obsessive-Compulsive Disorder (OCD), Post-traumatic Stress Disorder, and other developmental conditions (CAHMI, 2022). This is increased from the 2018 survey, which reported that 22.1% of children in the US were diagnosed with one or more of these disorders (CAHMI, 2018). By 2020, the number of children ages 3-17 who were diagnosed with depression increased by 27% from 2016. From 2009 to 2019, it was reported that suicidal behaviors among adolescents increased by more than 40%, becoming the leading cause of death and disability for this population (National Healthcare Quality and Disparities Report, 2022).

The most common disorders seen in the pediatric population are ADHD, anxiety, and behavior disorders (CDC, 2023a). Ten percent of all children in the US are diagnosed with ADHD (National Healthcare Quality and Disparities Report, 2022). That is approximately 6 million children. Anxiety diagnoses were not far behind, with 9.4% of children (approximately 5.8 million) diagnosed with anxiety. Almost

9% of children (approximately 5.5 million) were diagnosed with behavior problems. Depression diagnoses were seen in 4.4% of children (approximately 2.7 million), though this number is rapidly growing. Some of these diagnoses occur concurrently, meaning that a child may be dealing with more than one mental health disorder (CDC, 2023a).

With an increase in mental health disorders in the pediatric population, nurses in many settings are caring for patients with one or more of these diagnoses. While the patient they are caring for may be receiving care related to a different concern, their care plan and the nurse's approach will need to consider the challenges the patient faces pertaining to their mental health diagnosis. Nurses who care for children in any setting will interact with children with mental health disorders. Some of these may or may not be diagnosed. It is essential for nurses to be able to understand the basics of the most common pediatric mental health disorders, risk factors, screening tools, treatments, and health implications. All these concepts will affect the care plan and nursing interventions that are most appropriate. By furthering their knowledge on the topic of mental health in the pediatric population, nurses can be more prepared to effectively care for their patients.

Section 1 Personal Reflection

What is your experience working with pediatric patients with mental health disorders? What interests you about pediatric mental health? Are there aspects of mental health nursing in the pediatric population that you want to increase your knowledge about?

Section 1 Key Words

Pediatric - In the setting of this course, this term will refer to children ages birth to seventeen unless stated otherwise

Mental Health - The way children typically learn, behave, handle their emotions, and interact with others (Prevention, 2024c)

Section 2: Pediatric Mood Disorders

This section will review several pediatric mood disorders and related conditions. This list includes most major conditions, though other conditions not referred to in this course may exist.

Anxiety

All children have worries, but anxiety is when those worries persistently negatively impact the child at school, home, or play (CDC, 2024c). Anxiety affects up to 1 in 5 children and up to 1 in 3 adolescents in the United States and is seen more commonly in girls. It is the most common mental health diagnosis among children (Feriante et al., 2023). Symptoms vary widely. They can include nervousness, emotional outbursts, extreme avoidance, hypervigilance, or physical symptoms such as complaints of stomachaches, headaches, nausea, vomiting, shortness of breath, or sleep disturbances. Anxiety is closely related to fear but persists and causes a decrease in quality of life (Cleveland Clinic, 2023a) (Feriante et al., 2023). Anxiety has multiple contributing causes, including biological factors, family factors, and environmental factors. A biological factor is an imbalance of the neurotransmitters serotonin and dopamine. Family factors include learned behavior from caregivers. If a child witnesses significant anxiety from a family member, they may also develop anxiety. Environmental factors include distressing

events, such as the divorce of parents, illness, death in the family, moving to a new school, or any other stressful major life event (Boston Children's Hospital, 2024b). Children diagnosed with anxiety are at higher risk for later substance abuse, depression, and suicide (Cleveland Clinic, 2023a).

Different types of anxiety in pediatrics are categorized into six groups:

Generalized Anxiety Disorder

Generalized Anxiety Disorder occurs in approximately 1.9% of children, though reports vary on the prevalence of this condition (Cho et al., 2019). This disorder describes a condition where the child worries excessively about many things, such as relationships, grades, social interactions, natural disasters, or sports achievements. All children worry, but GAD describes a disorder in which the child worries significantly more frequently and more intensely than their peers. Children with Generalized Anxiety Disorder (GAD) may be seen as a perfectionist or strive for approval from others (The American Academy of Child and Adolescent Psychiatry, 2015). Children may express intense worry over the distant future. A hallmark of GAD is that the child's worries may vary, but they are consistently worried about something (Cleveland Clinic, 2023a). GAD tends to run in families. However, research suggests that genetic and environmental factors contribute to GAD. GAD often occurs concurrently with other various mental health disorders. This condition frequently impairs the child's participation in activities or contributes to a consistent level of elevated stress (Cho et al., 2019).

Separation Anxiety Disorder

Separation anxiety is a normal part of child development, beginning in late infancy, and generally subsides in the preschool years, about age three. Children may fear being separated from their parents and become upset when the separation occurs, or even just in anticipation of the separation. For example, a

child may cry when the parent drops them off at daycare. After a few minutes, the child joins the other children who are playing a game, and the event is resolved. Separation anxiety disorder is when these behaviors persist past the preschool years or occur for extended periods of time. Children with a separation anxiety disorder may express fearfulness for the safety of their parents or another family member when they are not together. They may struggle with sleeping independently. These children experience extreme homesickness. School performance may be affected, as the child cannot focus due to worrying about their parent or caregiver (CDC, 2024c) (The American Academy of Child and Adolescent Psychiatry, 2015). Separation anxiety accounts for about 50% of all childhood anxiety diagnoses and is present in about 4% of the pediatric population (Feriante et al., 2023) (Cleveland Clinic, 2023a).

Specific Phobias

A phobia is an intense, disproportional fear of a specific object or situation that affects children of all ages and is present in up to 9.2% of the pediatric population. Examples may be clowns, insects, storms, hospitals, needles, elevators, swimming, or being alone in the dark. Transient fears are normal in childhood, but phobias are more intense and prolonged, and often, the fear is out of proportion to the actual danger (Cleveland Clinic, 2023a)(Boston Children's Hospital, 2024b). The effects of a phobia are more severe than that of a typical fear, generally last an extended period, and do not subside with comfort from the parent or caregiver. The child may avoid usual activities to avoid the possibility of encountering the object or situation they fear (Boston Children's Hospital, 2024b). Agoraphobia is a specific type of phobia where the child is fearful of the outside world. These children feel unsafe in any environment except for home and will resist leaving the house for any reason. Symptoms of phobias include avoiding the object or situation that the child is afraid of, having nervousness about anticipating

encountering the specific feared object or situation, or extreme anxiety and reaction to experiencing the situation or the presence of the feared object. This can trigger a panic response (Cleveland Clinic, 2023a). Children who experience specific phobias usually do not recognize that their fear, or rather, the intensity of their fear, is irrational (The American Academy of Child and Adolescent Psychiatry, 2015).

Social Anxiety Disorder

Social anxiety disorder is a particular type of phobia. It can manifest as distress related to being “on the spot,” like being called on in class, public speaking, or in a performance situation (The American Academy of Child and Adolescent Psychiatry, 2015). Some children may exhibit fear related to interacting with others and, in more extreme cases, fear of leaving their home. Children with social anxiety disorder will often have difficulty interacting with new people, even peers, or avoid interacting with others altogether. This can inhibit their usual activities as they may avoid situations where they may have to converse with others (Cleveland Clinic, 2023a). In older children, the anxiety is often rooted in a fear of making a mistake, social misstep, or being negatively judged by others, especially peers. They also fear that others will notice their nervousness. Symptoms often include nail biting, crying, avoiding eye contact, muffled or low speech, and other somatic symptoms, like excessive sweating. Children and youth with social anxiety disorders typically have less developed social skills and have difficulty building and maintaining relationships with peers (Beidel et al., 2019). Children may exhibit behavior problems, tantrums, or delay getting prepared to leave the home when they know they will be entering a social situation.

Panic Disorder

This disorder occurs when the child's extreme worries or fears are accompanied by physical symptoms, such as heart palpitations, dizziness, shaking, or difficulty breathing (Cleveland Clinic, 2023a). The child may have an overwhelming feeling that they are dying or that they are completely out of control. While specific triggers may be able to be recognized (The American Academy of Child and Adolescent Psychiatry, 2023), these episodes tend to begin suddenly, and it is often difficult for the child or their parent to establish the cause. The occurrence of a panic episode, or panic attack as it is commonly referred to, can contribute to the fearfulness of a future episode (America, 2015). This disorder is diagnosed when there are at least two panic attack episodes, followed by an extended period of fearfulness that another episode will occur. Panic disorder typically emerges in adolescence, occurring in approximately 2.3% of adolescents (Catarozoli et al., 2019), but can also begin in childhood (The American Academy of Child and Adolescent Psychiatry, 2023). Female children are more likely to experience panic disorder (Catarozoli et al., 2019).

Selective Mutism

This relatively rare condition occurs when a typically talkative child refuses to speak or interact with others, even in situations where it is expected or required. These children may avoid eye contact, turn away, or retreat to a hiding place. This disorder typically occurs in younger children, emerging at about age five (American Academy of Pediatrics, 2015). Some children experiencing selective mutism may refuse to communicate in any manner, including sounds and gestures. The child's failure to communicate is not due to a speech impairment, lack of knowledge of the language, or other developmental disorder, such as autism spectrum disorder, and must occur for at least a month. The child may interact with one or two peers but generally does not talk to others. This can

significantly affect school performance and social development. The prevalence of Selective Mutism is not well understood. The frequency of occurrence is reported as anywhere between 0.3% and 2% of children. Like other anxiety disorders, studies report that Selective Mutism occurs more frequently in girls. However, new research suggests there may be less of a disparity between male and female children for this condition. Some parents describe their child as shy, while others are surprised to learn from teachers that their child does not speak at school. Selective mutism is highly correlated with social anxiety disorder, and some researchers believe it to be an extreme form of social anxiety disorder (Kristensen et al., 2019).

Depression

Feeling sad or hopeless from time to time is a typical emotion for children; however, when it persists for more than two weeks, affects the child's participation in activities they used to enjoy, and makes the child feel helpless to change their situation, it is considered depression (CDC, 2023b). Depression affects 4.4% of children ages 3-17, which is approximately 2.7 million children in the United States (CDC, 2023c). Between 2016 and 2020, the number of diagnoses of depression in children and adolescents increased by approximately 27% (National Healthcare Quality and Disparities Report, 2022). Depression occurs more frequently in adolescents, though it is often underdiagnosed. Adolescents who are also diagnosed with a chronic illness, such as epilepsy or diabetes, are at greater risk of experiencing depression (Cleveland Clinic, 2023b). Children diagnosed with depression often report feeling sad and hopeless. They are frequently irritable. They may no longer want to participate in activities or hobbies they used to enjoy. They may show changes in eating patterns, eating more or less than usual. They may sleep more or less than usual. Children with depression may exhibit a change in energy levels, which could be demonstrated by increased

fatigue or increased restlessness. Children may have difficulty focusing at school. They may express feelings of worthlessness, uselessness, or guilt. Some children may show signs of self-injury or other self-destructive behavior (CDC, 2023b).

There are different types of depression, even in children. Major depressive disorder, also known as clinical depression, is the most common form of depression in children and is characterized by an overall feeling of sadness, withdrawal, and disinterest lasting more than two weeks. Premenstrual dysphoric disorder (PMDD) affects girls who have experienced menarche. They may have symptoms of depression or anxiety in the week before their period begins, accompanied by irritability, difficulty focusing, anger, crying, or inability to cope with everyday challenges. Physical symptoms may include menstrual cramps, body aches, and fatigue. PMDD inhibits the child from participating in their usual routines and activities. Seasonal affective disorder (SAD) is similar to major depressive disorder. While it can occur in any season, it typically occurs in the dark winter months and improves with the change of season. Disruptive mood regulation disorder describes a mood disorder in which the child has frequent outbursts, displays of anger, tantrums, and physically or verbally aggressive behaviors. Difficulty managing strong feelings can be typical in younger children, so this condition is generally only diagnosed after age six, when children should be able to self-regulate their emotions more effectively. Dysthymia is a mild form of major depressive disorder characterized by long periods of similar symptoms, though less intensely felt. Parents may think the symptoms are just part of the children's personality (Cleveland Clinic, 2023b).

The cause of depression in adolescents and children is not well known, but it is believed that there are genetic and environmental components. Stressful major life events, such as the divorce of the parents or the death of a loved one, can contribute to the condition. Bullying and substance abuse are also potential causes (Cleveland Clinic, 2023b). Some children may not appear sad but begin

acting out or getting in trouble at school or home. Any significant changes in mood or behaviors should be noted (CDC, 2023b).

Extreme cases of depression can lead to suicidal ideation, especially in adolescents. From 2010 to 2020, the rate of suicidal behaviors in adolescents increased by 44%, creating a public health crisis (National Healthcare Quality and Disparities Report, 2022). In just the years between 2016 and 2022, children's hospitals reported a 166% increase in pediatric patients ages 5-18 who were treated in the emergency department due to suicidal thoughts or behaviors. Suicidal ideation and suicide attempts have become the most commonly treated mental health crises in hospital emergency departments. Approximately 2 million suicide attempts occur each year in the adolescent population, and about 6,500 deaths due to suicide are reported annually (Children's Hospital Association, 2023).

Oppositional Defiance Disorder (ODD)

Though parents will discuss concerns of misbehavior with their child's pediatrician, oppositional defiance disorder (ODD) is more intense and more specific than just misbehavior. ODD is a disruptive, impulse-control, and conduct disorder. Symptoms include angry/irritable moods, with children frequently losing their temper, early annoyance, and reports of the child often feeling angry or resentful. The child shows argumentative behavior and will frequently argue with authority figures. They have defiant behavior, refusing to adhere to rules or comply with requests made by adults. They will often deliberately annoy others and blame others for their misbehavior. These children display vindictive behavior (Martel, 2019). ODD affects 2-11% of children, many of whom may be misdiagnosed as having conduct disorder or may be undiagnosed (Cleveland Clinic, 2022).

Symptoms usually emerge early, in the preschool years (Martel, 2019). Children are typically diagnosed with ODD by age eight, and symptoms usually decline after age 10 (Cleveland Clinic, 2022). ODD contributes to problems with family and peer relationships and school performance and, for some, may result in legal consequences. Biological, genetic, and environmental factors all contribute to the onset of ODD. ODD often occurs with Attention-Deficit/Hyperactivity Disorder (ADHD) and can contribute to other mood disorders. Some children with ODD will eventually develop conduct disorder (Martel, 2019).

Conduct Disorder (CD)

Conduct disorder (CD) characterizes behavior that is persistently aggressive and antisocial (Yale Medicine, 2024). It is related to ODD as a disruptive behavioral disorder (Mohan et al., 2023). This behavior violates the rights of others, and children with CD show no remorse for their words or actions. It affects up to 3% of children and adolescents, and symptoms include bullying, abuse of animals, setting fires, habitual lying, vandalism, stealing, alcohol and other substance abuse, and truancy. These behaviors typically occur prior to the onset of adolescence. Conduct disorder occurs twice as frequently among males compared to females. It is also commonly associated with ADHD. Conduct disorder is categorized into three groups. When symptoms appear before age 10, it is called child-onset CD. When symptoms emerge after age 10, it is referred to as adolescent-onset CD. The prognosis for child-onset CD is typically associated with more aggressive behavior, and outcomes tend to be worse than those with adolescent-onset CD (Yale Medicine, 2024). The third category identifies those with CD where the onset of symptoms is unknown, referred to as unspecified type (Mohan et al., 2023). Many factors contribute to CD, including neurodevelopmental, socioeconomic, genetic, psychological, environmental, and social factors (Yale Medicine, 2024). The family environment significantly impacts

prognosis. Those children with low intelligence and dysfunctional families with a history of criminal involvement tend to have a poor prognosis (Mohan et al., 2023).

Attention-Deficit/Hyperactivity Disorder (ADHD)

Attention-Deficit/Hyperactivity Disorder (ADHD) is the most common mental health disorder among children. It is identified as a persistent pattern of inattentiveness, hyperactivity, and impulsivity that impedes daily life. There are three types of ADHD. Children with inattentive type may make careless mistakes, have difficulty focusing on play activities or reading, appear as if they are not listening when spoken to, have difficulty finishing schoolwork, get distracted easily, avoid tasks that require prolonged attention, lose things easily, and are often forgetful. Children with hyperactivity-impulsivity type may have difficulty sitting still or staying in their seat, running or climbing in an almost compulsive manner, are constantly in motion, talk excessively, have difficulty with conversations as they often interrupt other speakers, and find waiting their turn very difficult. Some children have a combined type of ADHD, which involves symptoms from both inattentive and hyperactivity-impulsivity types. Many symptoms are seen in children at times, but children with ADHD experience symptoms more intensely and more frequently, and the symptoms affect the child's quality of life (National Institute of Mental Health, 2023). In 2022, 11.3% of children ages 5-17 were reported as having a diagnosis of ADHD (Reuban & Elgaddal, 2024). Although ADHD can be diagnosed at any age, it is typically diagnosed before age 12 and can be diagnosed as early as age 3 (National Institute of Mental Health, 2023). ADHD affects how children interact with those around them and, therefore, often have difficulty with self-esteem, peer relationships, and school performance. Symptoms of ADHD usually persist into adolescence and

adulthood, though many are able to develop strategies to help them be successful and manage symptoms (Mayo Clinic Staff, 2019).

Tourette Syndrome

Tourette syndrome, named after Gilles de la Tourette, who first described the condition in 1885, is characterized by uncontrollable and abrupt movements. While de la Tourette referred to these movements as *maladie des tics*, the abrupt movements of Tourette syndrome are now referred to as tics. Tics are uncontrollable, spontaneous movements or vocalizations. They are nonrhythmic, and the duration is unpredictable (Leckman et al., 2022). The child often feels a premonitory urge before the tic and a sense of relief after the tic occurs. Tics can affect any part of the body but usually involve the face, head, or neck. Vocal tics such as grunting, clicking, or yelling words can also be seen.

Shouting obscenities occurs in less than 10% of Tourette syndrome cases (Jones et al., 2023). The prevalence of Tourette syndrome in the pediatric population is unknown, as many cases are undiagnosed. It is estimated that the condition affects 0.6% of the pediatric population, with about half of those with Tourette syndrome being undiagnosed. Boys are three times more likely to experience Tourette syndrome than girls, and more adolescents ages 12-17 are diagnosed than children ages 6-11. Tourette syndrome usually cooccurs with other mental health disorders, including anxiety, ADHD, and behavioral problems. Tourette syndrome affects children's daily lives and often includes bullying due to the nature of the uncontrollable tics. Parents typically notice tics when the child is around six years old, though a diagnosis frequently takes longer to determine. The severity of impairment due to the tics depends on the severity or nature of the tics the child experiences. Tics are reported as being more severe when the child is experiencing a stressful situation, such as moving to a new school. For most

children, the tics improve or subside entirely as the child moves into adulthood, but for some, the tics worsen (CDC, 2024a).

Obsessive-Compulsive Disorder (OCD)

Obsessive-Compulsive Disorder is a condition where children experience obsessions or pervasive thoughts regarding a particular task or behavior, followed by a compulsion to complete a task that is meant to reduce the stress of the obsession (Stiede et al., 2024). For instance, a child who is experiencing obsessive thoughts that germs are going to make them gravely ill may try to relieve that distress with the compulsion to wash their hands. The child may have to say something repeatedly, count or repeat an action many times to ease the distress of the obsessive thoughts. The urge to complete the action or behavior persists even if the child tries to ignore the thoughts. The actions of the compulsion do not necessarily have to relate to or alleviate the perceived consequences of the obsession realistically. The compulsions that the child experiences can significantly interfere with their daily routines and activities or take excessive amounts of time (at least an hour) over the course of the day. Stereotypically, people believe children with OCD may be very organized, but the obsessions and compulsions do not always relate to the cleanliness of their environment. The child can experience multiple obsessions and compulsions, and they can change over time (CDC, 2023e). OCD occurs more frequently in males than females, though among adolescents, the prevalence difference between the two groups is much less. Symptoms of OCD typically appear before age ten and occur in approximately 2-4% of children. There are different opinions on the cause of OCD, with various proposed factors including biological, genetic, and psychological contributors (Stiede et al., 2024). Like other pediatric mental health disorders, OCD often cooccurs with other diagnoses (CDC, 2023e).

Post-Traumatic Stress Disorder (PTSD)

Post-traumatic stress disorder (PTSD) occurs after a child has experienced or witnessed a traumatic event. Following the event, they experience cognitive impairments, mood, and behavior changes, and symptoms can also include somatic effects (Torrico & Mikes, 2024). While all children would be affected in some way by a traumatic event, in children with PTSD, the effects last long-term (more than a month) and inhibit their participation in everyday routines and activities. Symptoms vary but may include reenacting the event in their play, nightmares and other sleep issues, becoming distressed when reminded of the event, overall sadness or fear, irritability and anger, hypervigilance, denial that the event occurred, or avoiding people or places related to the event. Some children may exhibit symptoms similar to ADHD. Many events could cause PTSD. Some examples are physical, sexual, or emotional abuse, being a victim of violence or witnessing violence, the death of a close family member, a catastrophic disaster, such as a mass shooting or devastating hurricane, and severe car accidents (CDC, 2023f). Approximately 31% of children have experienced what is considered to be a traumatic event, and 7.8% of children develop PTSD (Torrico & Mikes, 2024). The reason some children develop PTSD while others do not is unknown, though biology and temperament contribute to the condition. Prevention is achieved by avoiding exposing children to traumatic events (CDC, 2023f). Children are more likely to experience PTSD if the associated trauma was intentional, such as abuse, versus accidental, like a car accident. Chronic PTSD occurs when symptoms persist for over a year and is common among children (Torrico & Mikes, 2024).

Eating Disorders

Eating disorders have increased by 107.4% in the pediatric population and affect 7.8% of children under age 17, with a notable increase in the male population.

Eating disorders are characterized by ongoing, profound disruptions in the child's relationship with food and are accompanied by persistent, distressing thoughts. There are different types of eating disorders. Most people think of Anorexia nervosa when they think of an eating disorder. This disorder causes the child to become obsessed with losing weight, even if their weight is below what is expected for their age and height. This is accomplished through strictly limiting food intake or excessive exercise. Atypical anorexia nervosa is similar in presentation to anorexia nervosa, but the child's weight is maintained at what is considered typical for their age and height. Despite maintaining their weight, the child does experience the same physical and psychological consequences as those with typical anorexia nervosa. Bulimia nervosa describes cycles of bingeing and purging food. Purging may involve self-induced vomiting, misuse of laxatives, or excessive exercise. Binge-eating disorder describes a condition in which the child consumes an excess amount of food very quickly within a given time frame that is not consistent with what most people could consume in that time frame. The rapid consumption of food is not related to hunger. Children with binge-eating disorder feel unable to control themselves or the amount of food they eat during these sessions and often will binge eat in private due to shame and embarrassment surrounding their behavior. Avoidant restrictive food intake disorder describes a disinterest in eating that produces significant weight loss, poor nutrition, inability to maintain growth or typical weight gain, and nutritional deficiency. These children may require enteral feedings to provide their nutrition and experience psychological distress. Avoidant restrictive food intake disorder can only be diagnosed when the symptoms cannot be attributed to any medical condition, religious restriction, or the availability of appropriate food. Symptoms of eating disorders include significant weight loss or rapid weight changes, fatigue, irregular or absent menstrual cycles for girls, decreased focus, cold sensitivity, dizziness, fainting, restrictive eating, excessive exercise, frequent self-weighing, fixation with body appearance, unusual eating behaviors such as counting bites or

cutting food into tiny pieces, avoiding social situations that involve food, frequent visits to the bathroom after eating, or distorted body image. Like other mental health conditions, eating disorders often cooccur with other mental health disorders, especially anxiety disorders and OCD (Pastore et al., 2023).

Schizophrenia

Childhood schizophrenia is rare but does occur. Schizophrenia typically develops in early adulthood but is considered early-onset when symptoms emerge before age 18. This disorder is characterized by cognitive, behavioral, and emotional impairments, which could include outbursts, hallucinations, and disordered thinking. Symptoms may consist of bizarre thinking, insomnia, a decrease in school performance, confusing fiction for reality, paranoia, strange fears, and delusions. A diagnosis of schizophrenia for children and younger adolescents is made with great caution and only when no other physical or psychological source for the symptoms can be identified (Mayo Clinic Staff, 2021).

Related Conditions

Children who experience mood disorders often have other related conditions. Frequently related conditions include autism spectrum disorder, developmental disabilities, learning disorders, underage drinking, substance use, and traumatic brain injury (CDC, 2024c). It is common for mental health disorders to co-occur. Almost 75% of children with depression also experience anxiety and nearly 50% exhibit behavior problems. More than 1/3 of children diagnosed with anxiety were also diagnosed with behavior problems; another 1/3 were also diagnosed with depression. Of children with behavior problems, such as ODD or CD, more than 1/3 experienced anxiety, and about 1/5 were diagnosed with depression (CDC, 2023a). How the different related conditions and commonly co-occurring

diagnoses contribute to each diagnosis of pediatric mental health disorders is complicated and often unknown.

Section 2 Personal Reflection

What challenges do you think would be present when a child is diagnosed with multiple mental health disorders? What challenges would be present when a child has a mental health disorder, as well as a chronic physical health condition, like diabetes or cystic fibrosis?

Section 3: Risk Factors and Protective Factors

Mental health disorders in the pediatric population share many risk factors. The presence of one or many risk factors does not guarantee that a mental health disorder is imminent, but many with mental health disorders share certain traits or experiences. Children's mental health is also affected by variable factors. There is not necessarily one cause for mental health disorders in children. Biological factors include the balance of neurotransmitters in the brain. Genetic factors also affect the onset of mental health disorders (Boston Children's Hospital, 2024b). Children whose parents experience mental health disorders are at higher risk for also developing a mental health disorder (CDC, 2023b). Environmental influences contribute to the development of mental health disorders. Children who experience bullying, a stressful or traumatic event, poverty, or abuse are also more likely to experience a mental health disorder (Prevention, 2023a). For children, boys are more likely than girls to have a mental health disorder, but in the adolescent population, girls are more likely than boys to experience mental health challenges (CDC, 2023a). Parenting styles also affect the development of some mental health challenges, such as anxiety and phobias, with children who have overly protective or critical parenting being at higher risk (Feriante et al.,

2023). Children exposed to alcohol prenatally are at increased risk for behavior disorders like ODD (Cleveland Clinic, 2022). For adolescents, those who experience early puberty, have a difficult personality or low self-esteem, insecure attachment to their caregivers, poor social skills, abuse substances or use alcohol, have a stressful home environment, lack parental supervision, have a history of any type of abuse, experience peer rejection or bullying, show poor academic performance, and those living in an urban environment are at increased for mental health disorders (National Research Council and Institute of Medicine, 2009). Children who identify as LGBTQ+ are at higher risk for mental health disorders. In 2022, almost 25% of adolescents in this population had attempted suicide, and 70% experienced depressive symptoms (Children's Hospital Association, 2023).

There are protective factors that increase the likelihood that a child will not experience a mental health disorder, even when other risk factors are present. Programs that encourage the positive development of children help to lessen the risk for mental health disorders. Children who are able to develop healthy self-esteem, problem-solving skills, and coping skills are at lower risk. Parents can offer a structured home environment with clear expectations to help foster these characteristics. Other positive adult relationships are also beneficial for children, including teachers, coaches, or religious leaders. Protective factors include supporting the child's physical well-being with good nutrition, exercise, healthcare, and physical and psychological safety (Cooper, 2023). For adolescents, these protective factors include academic achievement, high self-esteem, problem-solving skills, involvement in school activities, friend groups, athletics, religious or cultural activities, work, a structured home environment, supportive family members, the presence of mentors, and physical and psychological safety (National Research Council and Institute of Medicine, 2009).

The COVID-19 pandemic has contributed to an increase in mental health disorders in children. Isolation from friends, academic disruption, loss of loved ones due to illness, parental loss of employment, and abuse at home all contribute to the increase in disorders. Other influences on pediatric mental health in recent years have been mass violence, social media involvement, natural disasters, climate change, and political unrest. Bullying, especially online, has also contributed to the increase in mental health disorders in children. Research is ongoing to determine how these factors influence pediatric mental health (Abrams, 2023).

Section 3 Personal Reflection

Why do you think many pediatric mental health disorders share certain risk factors? Consider the balance of genetic, biological, and environmental factors. How might they influence each other to contribute to a mental health disorder? Why is it important to consider protective factors in addition to risk factors? Why do you think adolescents in the LGBTQ+ community are at higher risk for mental health disorders, specifically depression? Where, in your practice, have you observed the mental health impact of the COVID-19 pandemic?

Section 3 Key Words

Risk factors - characteristics or events that increase the likelihood a condition will occur

Protective factors - characteristics or events that decrease the likelihood a condition will occur

Bullying - ongoing, targeted mistreatment of one individual by another

Section 4: Screening Tools

It can be challenging for caregivers to know if they should have their child evaluated for a possible mental health disorder. Often, the behaviors they are concerned about can be typical for any child. When the behaviors inhibit the child from participating in activities they used to enjoy or interfere with their daily routines, cause distress to the child or family, interfere with school performance, affect relationships with peers, or continue for more than two weeks, the child should be screened for a mental health disorder. If the child expresses unsafe behavior or thoughts towards themselves or others, help should be sought immediately (National Institute of Mental Health, 2024).

For most pediatric mental health disorders, evaluation occurs after the emergence of concerning symptoms. However, screening tools are available. The American Academy of Pediatrics (AAP) recommends universal mental health screening for all children over age 4 (Parkhurst & Friedland, 2020). Standardized screening tools are not diagnostic but assist the provider in determining if the child needs further evaluation. Screening tools have been found to supplement the assessment and reduce the number of children who have a mental health disorder yet are undiagnosed. Routine screening for anxiety in children should begin at age 8, and screening for depression should begin at age 12. Tools often used for routine screening include the Pediatric Symptom Checklist-17 and the Strengths and Difficulties questionnaire (American Academy of Pediatrics, 2024).

The Pediatric Symptom Checklist-17 is an abbreviated version of a more extensive checklist developed in 1988. Still, it has been commonly used, and a study in 2016 determined it remains a reliable screening tool for use by practitioners (Murphy et al., 2016). The caregiver completes this tool by reading each statement and determining if the statement describes their child never, sometimes, or often. The statements are separated into three categories: attention, externalizing, and

internalizing. For each statement, a number is assigned based on the frequency at which the caregiver observes the behavior. When the scores are totaled, a score of 17 or greater indicates that further evaluation for a mental health disorder is warranted. Since the statements are separated into different groups, individual group scores may indicate a need for additional testing, even if the PSC-17 total score is less than 17. A score of 7 or greater in the attention or externalizing area or a score of 5 or greater in the internalizing area also indicates that further evaluation is needed. There is also a version of this screening tool where the child can evaluate themselves (Jellinek & Murphy, 1988).

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PEDIATRIC SYMPTOM CHECKLIST-17 (PSC-17)

Filled out by: _____ Record #: _____

Child's DOB: _____ Today's Date: _____

Emotional and physical health go together in children. Because parents are often the first to notice a problem with their child's behavior, emotions, or learning, you may help your child get the best care possible by answering these questions. Please indicate which statement best describes your child.

Please mark under the heading that best describes your child:		NEVER	SOMETIMES	OFTEN	
◆	Fidgety, unable to sit still	◆	0	1	2
✱	Feels sad, unhappy	✱	0	1	2
◆	Daydreams too much	◆	0	1	2
□	Refuses to share	□	0	1	2
□	Does not understand other people's feelings	□	0	1	2
✱	Feels hopeless	✱	0	1	2
◆	Has trouble concentrating	◆	0	1	2
□	Fights with other children	□	0	1	2
✱	Is down on him or herself	✱	0	1	2
□	Blames others for his or her trouble	□	0	1	2
✱	Seems to be having less fun	✱	0	1	2
□	Does not listen to rules	□	0	1	2
◆	Acts as if driven by a motor	◆	0	1	2
□	Teases others	□	0	1	2
✱	Worries a lot	✱	0	1	2
□	Takes things that do not belong to him or her	□	0	1	2
◆	Distracted easily	◆	0	1	2

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Total ◆ _____ Total □ _____ Total * _____ Grand Total ◆+□+* _____

Form adapted with permission for *Feelings Need Check Ups Too*, 2004
©1988, M. Jellinek & J.M. Murphy, Massachusetts General Hospital (PSC-17 created by W. Gardner & K. Kelleher)
and *Bright Futures in Practice: Mental Health*, 2002

The strengths and difficulties questionnaire (SDQ) is a brief survey given by providers for caregivers to complete to screen for mental health disorders. There are a few different versions that can be used for various ages or for teachers to complete in addition to the parent form. There is also a version of the SDQ that includes information from the caregiver on how behaviors affect the child or family. Scoring is determined by which form is used, and it is recommended that the SDQ be scored electronically at www.SDQscore.org (Youth in Mind, 2022).

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Strengths and Difficulties Questionnaire

P or T 4-10

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of the child's behavior over the last six months or this school year.

Child's name

Male/Female

Date of birth.....

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restless, overactive, cannot stay still for long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often complains of headaches, stomach-aches or sickness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shares readily with other children, for example toys, treats, pencils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often loses temper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rather solitary, prefers to play alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generally well behaved, usually does what adults request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many worries or often seems worried	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helpful if someone is hurt, upset or feeling ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constantly fidgeting or squirming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has at least one good friend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often fights with other children or bullies them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often unhappy, depressed or tearful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generally liked by other children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easily distracted, concentration wanders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nervous or clingy in new situations, easily loses confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kind to younger children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often lies or cheats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Picked on or bullied by other children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often offers to help others (parents, teachers, other children)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinks things out before acting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Steals from home, school or elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gets along better with adults than with other children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many fears, easily scared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good attention span, sees work through to the end	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature

Date

Parent / Teacher / Other (Please specify):

Thank you very much for your help

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(Goodman, 2005)

There are secondary, targeted screening tools for specific conditions. The Generalized Anxiety Disorder (GAD-7) and Screen for Child Anxiety Related Disorders (SCARED) tools are used to screen for anxiety disorders. For adolescents, the Patient Health Questionnaire 9 Modified for Adolescents (PHQ9M) and the Columbia Depression Scale are used to screen for depression. The Ask Suicide Screening Questions (asQ) can be used for patients with more severe depressive symptoms. Practitioners very commonly use the Vanderbilt rating scale in screening for ADHD, oppositional behaviors, and anxiety disorders (American Academy of Pediatrics, 2024). Like other screening tools, the Vanderbilt tool has a form for parents and a form for teachers since different behaviors may be observed in different settings. The goal of the Vanderbilt form is to identify children with ADHD while not over-diagnosing the condition (Anderson et al., 2022). The screening form cannot be the only factor in generating a diagnosis of ADHD, but it is a significant contributor and valuable tool (NICHQ, 2002).

NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of your child.

When completing this form, please think about your child's behaviors in the past 6 months.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected	0	1	2	3
12. Runs about or climbs too much when remaining seated is expected	0	1	2	3
13. Has difficulty playing or beginning quiet play activities	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes in on others' conversations and/or activities	0	1	2	3
19. Argues with adults	0	1	2	3
20. Loses temper	0	1	2	3
21. Actively defies or refuses to go along with adults' requests or rules	0	1	2	3
22. Deliberately annoys people	0	1	2	3
23. Blames others for his or her mistakes or misbehaviors	0	1	2	3
24. Is touchy or easily annoyed by others	0	1	2	3
25. Is angry or resentful	0	1	2	3
26. Is spiteful and wants to get even	0	1	2	3
27. Bullies, threatens, or intimidates others	0	1	2	3
28. Starts physical fights	0	1	2	3
29. Lies to get out of trouble or to avoid obligations (ie, "cons" others)	0	1	2	3
30. Is truant from school (skips school) without permission	0	1	2	3
31. Is physically cruel to people	0	1	2	3
32. Has stolen things that have value	0	1	2	3

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

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Adapted from the Vanderbilt Rating Scales developed by Mark L. Wolraich, MD.

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NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Symptoms (continued)	Never	Occasionally	Often	Very Often
33. Deliberately destroys others' property	0	1	2	3
34. Has used a weapon that can cause serious harm (bat, knife, brick, gun)	0	1	2	3
35. Is physically cruel to animals	0	1	2	3
36. Has deliberately set fires to cause damage	0	1	2	3
37. Has broken into someone else's home, business, or car	0	1	2	3
38. Has stayed out at night without permission	0	1	2	3
39. Has run away from home overnight	0	1	2	3
40. Has forced someone into sexual activity	0	1	2	3
41. Is fearful, anxious, or worried	0	1	2	3
42. Is afraid to try new things for fear of making mistakes	0	1	2	3
43. Feels worthless or inferior	0	1	2	3
44. Blames self for problems, feels guilty	0	1	2	3
45. Feels lonely, unwanted, or unloved; complains that "no one loves him or her"	0	1	2	3
46. Is sad, unhappy, or depressed	0	1	2	3
47. Is self-conscious or easily embarrassed	0	1	2	3

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
48. Overall school performance	1	2	3	4	5
49. Reading	1	2	3	4	5
50. Writing	1	2	3	4	5
51. Mathematics	1	2	3	4	5
52. Relationship with parents	1	2	3	4	5
53. Relationship with siblings	1	2	3	4	5
54. Relationship with peers	1	2	3	4	5
55. Participation in organized activities (eg, teams)	1	2	3	4	5

Comments:

For Office Use Only

Total number of questions scored 2 or 3 in questions 1–9: _____

Total number of questions scored 2 or 3 in questions 10–18: _____

Total Symptom Score for questions 1–18: _____

Total number of questions scored 2 or 3 in questions 19–26: _____

Total number of questions scored 2 or 3 in questions 27–40: _____

Total number of questions scored 2 or 3 in questions 41–47: _____

Total number of questions scored 4 or 5 in questions 48–55: _____

Average Performance Score: _____

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There are challenges to screening patients in the pediatric primary care setting. Providers and office staff often have limited time with each patient, and explaining the tool, completing it, and scoring can take time. Certain screening tools may only be used for specific age groups. The Vanderbilt ADHD screening tool is widely used and is a valid tool. Still, it can only be used for ages 6-12, even though an ADHD diagnosis could be warranted as early as age 3, and indeed, diagnoses can be made after age 12. False positive screening tests can also be problematic, but combining general and targeted screening can help. However, implementing more than one screening tool also takes time (Parkhurst & Friedland, 2020). Nurses play an essential role in implementing screening tools in their practice setting. Nurses can help educate non-clinical staff on the importance of ensuring screening tools are completed before seeing the provider, ensuring follow-up regarding the tools if more than one form is needed, and helping develop processes to make the tools efficient. Nurses should also be knowledgeable about which tools their practice uses, what they are used to screen for, and for what ages they can be used.

Section 4 Personal Reflection

How do you think patients can benefit from routine screening for mental health disorders? How do you use screening tools in your work setting? What barriers to screening exist in your work environment? What are ways you can implement a screening process in your practice?

Section 4 Key Words

False positive - when a test result indicates a condition is present, though it is not, usually due to testing methods

Targeted screening - a tool that is used to investigate the presence of a particular condition

Section 5: Current Treatments

While many pediatric mental health disorders cannot be cured, they can be managed with treatment. Treatment is a team approach that involves the patient, caregivers, teachers, medical practitioners, and other significant adults in the child's life. Like many medical diagnoses, early treatment typically produces more effective symptom relief (CDC, 2024c). Many pediatric mental health diagnoses share treatment methods, including psychotherapy and medications, as well as support and counseling for caregivers. Psychotherapy encompasses many different approaches, which will vary based on the condition. For children, these therapies typically incorporate parental involvement, skills to practice at home or school, and measures of progress, like school grades or a rating scale tool. The type of medication used depends on the diagnosis. Antidepressants, mood stabilizers, and stimulants are often used in conjunction with psychotherapy (National Institute of Mental Health, 2024). Alternative treatments, such as good nutrition, a stable home environment, and ensuring adequate sleep and exercise, are also beneficial in treating mental health disorders in children (CDC, 2023b).

Depression and anxiety disorders usually incorporate both medication and cognitive behavioral therapy. Cognitive behavioral therapy (CBT) is a type of psychotherapy that helps children recognize their emotions and develop specific tools and techniques to manage those feelings. They may learn how to calm themselves or face challenges in smaller steps. Children may learn new coping skills. CBT can occur individually or in groups, and parents benefit from helping their children implement the new skills they have learned. Selective serotonin reuptake inhibitors (SSRIs) are the frontline medications for treating anxiety disorders in children. These medications include fluoxetine, paroxetine, and sertraline (Cleveland Clinic, 2023a). SSRIs increase the amount of serotonin in the brain and increase feelings of happiness and well-being (Cleveland Clinic, 2023b). Sometimes, if SSRIs are ineffective, a serotonin and norepinephrine reuptake

inhibitor (SNRI) may be prescribed. Potential side effects of these medications include allergic reactions, fast or irregular heart rate, shortness of breath, dizziness, difficulty sleeping, headache, tremors, and upset stomach. Some of these symptoms do eventually resolve (Cleveland Clinic, 2023a). Studies show that a combination of CBT and medications is more effective than using either of these modalities independently (Feriante et al., 2023). Improvement with treatment for anxiety typically takes a few weeks to months to become effective (Cleveland Clinic, 2023a).

Oppositional defiant disorder treatment varies based on the child's age and the severity of their symptoms. Parent management training, psychotherapy, and school-based interventions are often used (Cleveland Clinic, 2022). Parent training includes teaching the caregivers evidence-based techniques called treatment elements or components. Clinicians will first introduce the most effective components and add more as needed. Components can be categorized into groups, including differential attention and effective commands/consistent consequences. Differential attention includes praise, rewards, reinforcing desired behaviors, and rapport building. Effective commands/consistent consequences include logical consequences, rewards, response cost, goal setting, and behavioral contracting. It eliminates the need for repeated requests by consistently enforcing consequences. These consequences can be both positive and negative but should, most importantly, be consistent in rewarding desired behavior and discouraging negative behavior. Family therapy is an essential aspect of ODD treatment (Martel, 2019). Conduct disorder is usually treated in the same way but may include anger therapy and more extensive medication therapy (Mohan et al., 2023).

Risperidone, which is an antipsychotic medication, may be used in the treatment of CD to decrease aggressive behaviors (Yale Medicine, 2024).

ADHD is not curable, but it is treatable, and a multi-modal approach works well. Medication can be used to reduce hyperactivity and help with impulse control.

Medicines used to treat ADHD include stimulants, which increase the levels of dopamine and norepinephrine in the brain to assist with thinking and attention, and non-stimulants, which help to improve focus and attention, as well as help manage any side effects of the stimulant medication (National Institute of Mental Health, 2023). Amphetamines and methylphenidate are stimulants used for treating ADHD. They are available in different forms, such as long-acting and short-acting, and in multiple dosages. Children with heart conditions or other psychiatric conditions may not be able to use stimulants to treat ADHD. Non-stimulants used to treat ADHD include atomoxetine, antidepressants, guanfacine, and clonidine. Stimulants and non-stimulants are often used in conjunction (Mayo Clinic Staff, 2019).

Medication treatment for ADHD can be difficult to introduce, as different combinations of medications tend to work differently for various individuals. Frequent communication between the caregiver and provider and frequent monitoring is used to evaluate the effectiveness of treatment. Psychotherapy and psychosocial interventions are helpful for children with ADHD. Cognitive behavior therapy helps children learn to monitor their behavior. Family therapy and behavioral parent management training helps the caregivers understand the causes of behaviors in their child and the most effective strategies to address those behaviors. Children with ADHD often experience a sense of shame due to behavioral difficulties at home and at school, as well as poor academic performance. Therapies that include the caregivers can help reduce those feelings of shame and teach strategies to rebuild the child's self-esteem. Classroom management techniques and accommodations are often necessary for ADHD. These are typically outlined in an Individualized Education Plan (IEP) and may include things like preferential seating, stretch breaks, repeating instructions, and verbal reminders for students to take their time and check their work during testing. Organization techniques can help children with ADHD overcome obstacles

to keeping track of their things and schoolwork. Support groups for parents can also be helpful as many caregivers share the same frustrations and concerns, and ideas and strategies can be shared with those in the group (National Institute of Mental Health, 2023).

Tourette syndrome is not curable, but it is crucial to assess for other underlying causes of tics and treat those conditions if they are identified. Understanding Tourette syndrome is incredibly important for parents to be able to help their children identify situations that may make their tics worse. The child's teacher plays a vital role for children with Tourette syndrome. The teacher must understand the nature of the tics, that they cannot be controlled, and that they may worsen if the child is singled out for the tics. If the child is experiencing distress or decreased quality of life, behavior therapy or medication treatment may be used. Some tics may be painful for the child, and pain management may become necessary. Guanfacine and clonidine are medications used for severe tics, though treatment efficacy is more significant for children who also have ADHD. Antipsychotics have been used to treat Tourette syndrome; however, studies have shown that guanfacine or clonidine was just as effective as antipsychotics but with fewer side effects. Habit-reversal training is used to treat Tourette syndrome. This is a type of comprehensive behavioral intervention for tics. This method helps the child identify triggers that may cause or worsen tics. They are then taught techniques to help calm themselves and redirect the urge to perform the tic. This technique focuses on helping the child recognize the premonitory urge that precedes the tic, which makes this technique more difficult for younger children, but it is very effective for some children. In extreme cases where motor tics are very painful or debilitating, botulinum toxin injections can be used. When all other treatments are ineffective, deep brain stimulation has been used, though more research is needed to determine the most appropriate age for device implantation (Jones et al., 2023).

OCD treatment, like other pediatric mental health treatments, involves a combination of cognitive behavioral therapy and medication. During CBT sessions, the child is taught to retrain their thoughts to be more positive, leading to less distressing OCD symptoms (CDC, 2023e). Serotonin reuptake inhibitors are used to treat OCD in children. Usually, higher doses than what is typically used to treat depression in children are needed to treat OCD effectively. Medication can help manage the symptoms of OCD, though the onset of effectiveness can take time, and symptoms typically return when the drug is discontinued. Clomipramine is a tricyclic antidepressant, but it uniquely affects serotonin levels and, therefore, can also be used to treat OCD. Clomipramine generally has more bothersome side effects, so providers typically try SRI medications first (Stewart & (adapted), 2024). Caregivers and teachers can be instrumental in the treatment process as they learn techniques to support the child (CDC, 2023e).

When treating an eating disorder, any immediate medical symptoms are addressed first. A combination of therapies is used to treat the disordered behaviors and any anxiety or depression. Nutritional counseling is generally included in treatment, along with CBT, family therapy, behavior modification, and medications. If the child requires immediate medical attention, they may be hospitalized, but eating disorders can usually be treated at home (Boston Children's Hospital, 2024a).

Treatment for post-traumatic stress disorder is different for children compared to adults. For adults, therapy alone has only slightly better outcomes than medication treatment alone; however, in children, trauma-based psychotherapy has been shown to produce far greater outcomes than pharmacological treatments. Trauma-based psychotherapy includes cognitive behavioral therapy (CBT), exposure-based therapy, Eye Movement Desensitization, and Reprocessing (EMDR) therapy. CBT helps the child to modify beliefs that may occur as a result of the trauma, as well as build coping skills. Exposure-based therapy cannot be used

in every situation, but for some children, exposing them to elements of the traumatic situation, such as the location, can help desensitize them to the stimulus and reduce symptoms. EMDR also helps reduce the anxiety associated with a specific stimulus and can also help to reduce PTSD symptoms. Medication treatment for children has not been approved due to a lack of evidence that it is helpful. However, SSRIs may be used for extreme symptoms (Torricco & Mikes, 2024). Support from family and friends is also an essential aspect of PTSD treatment in children (CDC, 2023f).

Treatment for schizophrenia, even when the onset is in childhood, is life-long. Antipsychotic medications are used to manage delusions and hallucinations. Other drugs, like antidepressants, may also be used to manage symptoms. Individual therapy and family therapy are both utilized in the treatment of childhood schizophrenia. Life skills training is used to help children develop academically and socially, as well as to help them care for themselves. Older adolescents also benefit from vocational training with supportive employers. Hospitalization is sometimes required to manage crises and help stabilize the child's symptoms. Maintaining a consistent medication regimen is incredibly important for children experiencing schizophrenia (Mayo Clinic Staff, 2021).

There are significant gaps in the care of children with mental health disorders. It is estimated that 70-80% of children with mental health disorders do not receive treatment. Because children's brains are still developing, their emotions and behavior can change rapidly, even with no mental health disorder, which can make noting concerning symptoms difficult (National Healthcare Quality and Disparities Report, 2022). Lack of access to mental health care is also a problem. Pursuing treatment is difficult when parents may not be able to take time off work to take a child to appointments, insurance may not provide coverage for testing or treatment that is needed, and treatment can be cost-prohibitive. In some areas, there are no providers who treat children, which requires the parents to travel

long distances to seek care. Many providers may also have wait lists, so care is delayed (CDC, 2023d). Another barrier to treatment is the stigma associated with mental health disorders. Parents may be reluctant to pursue treatment for their child because they feel their child will experience the adverse effects of having a diagnostic label. Some parents may also have concerns about the stigma of using medication to treat mental health disorders in children (Mayo Clinic Staff, 2024). The cost of medications can be burdensome for families. Some families may have limited treatment options due to which medications they can afford (Anderson et al., 2022). Access to mental health care treatment is a priority, and the Centers for Disease Control and Prevention are working to improve access for children with mental health disorders (CDC, 2023d).

Section 5 Personal Reflection

What treatments do you find common to different pediatric mental health disorders? What could be other barriers to treatment? What barriers to mental health treatment do you see in your practice?

Section 5 Key Words

Psychotherapy - the treatment of mental health disorders using psychological methods

Cognitive behavioral therapy - talking therapy that helps reduce symptoms by changing the way a person thinks about their problems and how they behave

Exposure-based therapy - gradually exposes a patient to the thing they fear in an effort to reduce the associated stress

Eye Movement Desensitization and Reprocessing (EMDR) therapy - a psychotherapy that involves the patient moving their eyes in a particular way while processing trauma they have experienced

Selective serotonin reuptake inhibitors - medications commonly used for mental health disorders that result in more serotonin present in the brain

Section 6: Case Studies

Case Study #1

Casey is a pediatric primary care nurse. A 9-year-old male patient, Tyler, and his mother come into the clinic with concerns regarding Tyler's behavior. Tyler has been getting in trouble at school for interrupting, not following directions, and disrupting his peers. His academic performance has declined this school year, and he keeps losing assignments. At home, he has had challenging outbursts of anger, gets frustrated easily, and has difficulty completing tasks.

What screening tool may be appropriate for Tyler's mother to complete based on the symptoms she shared?

The Vanderbilt screening tool is often used when practitioners are concerned that symptoms may be consistent with ADHD, CD, or anxiety. Tyler's mother completes the Vanderbilt tool, and the pediatrician interprets the results. Tyler is diagnosed with ADHD. The pediatrician prescribes a low-dose stimulant medication.

What are some important aspects of ADHD that Tyler's mother should be educated about?

Casey reinforces the physician's education about ADHD. She also reassures Tyler and his mother that it is a very common diagnosis among boys his age. Casey

informs Tyler's mother that he will need to be monitored frequently, usually every three months, in the clinic to monitor for side effects of the medication and evaluate the efficacy of the treatment.

How else can Casey support Tyler and his mother?

Casey encourages Tyler's mother to speak to his teacher about strategies that can help in school, such as preferential seating and stretch breaks. She shares information about a local ADHD support group and gives Tyler's mother some helpful website recommendations. She also educates on the importance of structure and routine to help Tyler manage his symptoms.

What emotions do you think Tyler may be experiencing due to his recent behavior? What emotions may his mother be experiencing? How do you think those emotions may have changed before or after the diagnosis? Can you think of other ways nurses can support children and caregivers after receiving a mental health diagnosis?

Case Study #2

Emily, a 15-year-old female previously diagnosed with depression, is found in her room by her parents after ingesting a dangerous amount of acetaminophen. She is transported via EMS to the local hospital.

Once Emily arrives in the emergency department (ED), what should be the nurse's first priority?

Jennifer, the ED nurse, assesses Emily's vital signs. She ensures Emily is currently safe and that no objects are available that she could harm herself with. According to the facility's policy, Jennifer notifies the nursing office that they will need a sitter in the room to ensure Emily's ongoing safety. Jennifer completes the orders

placed by the physician, and Emily is in stable condition. She is transferred to the intermediate care unit for further treatment and observation.

What would be essential to communicate to the nurse assuming care of Emily?

Once Emily is admitted to the intermediate care unit, her nurse, Mason, receives report, ensures Emily's vital signs are being appropriately monitored, and that a safety plan is implemented. Mason reviews the orders and administers medications as ordered. Emily's parents can visit at the bedside, though the sitter remains in place.

As Emily receives medical treatment, what information is important to gather for the physician in order to create an informed treatment plan?

Mason asks Emily and her parents about the history of her depression diagnosis, what treatment she has received, how compliant she has been with treatment, and other risk factors that may be present, such as alcohol or drug use. Emily denies drug and alcohol use but has had poor school performance lately and admits she is not interested in things she used to enjoy. She stopped taking her SSRIs because she thought they made her gain weight. Mason receives permission from the parents to interview Emily without them present, though the sitter is still present. Emily reports that she feels safe in her home and does not experience abuse at home. She reports that her parents are supportive, but she feels guilty for putting them through so much.

What intervention can Mason use to validate how Emily is feeling?

Mason tells Emily he understands she is concerned for her parents. He educates her that many risk factors lead to depression and that many are out of her control. He informs her that biological factors can contribute to depression and that the medication works by helping to balance the neurotransmitters in her brain. Emily

continues to receive treatment and is medically stable enough to be transferred to the behavioral health unit.

What information should Mason communicate to Debbie, the behavioral health nurse?

Mason reviews Emily's history, as well as the medical treatment course she received since coming to the hospital. He also informs Debbie of Emily's support system and continued depressive symptoms.

What should Debbie observe for upon Emily's arrival to the behavioral health unit?

Debbie observes how Emily's arrival affects the milieu environment. Emily is quiet and withdrawn. The unit remains calm, but Emily declines to interact with other patients.

What interventions are appropriate for Debbie to implement?

Debbie engages with Emily. She practices active listening and asks open-ended questions. She creates a safety contract with Emily to ensure ongoing safety. Emily agrees she will not self-harm and will be compliant with her medications. Debbie shares the unit schedule with Emily, and they plan her day together.

Once Emily has been stabilized with her SSRIs and has received several days of therapy, she is ready to be discharged home.

What education should the discharge nurse provide?

Debbie educates Emily and her parents on the importance of adhering to her medication schedule. She helps them understand how the medications affect Emily's moods. They have follow-up appointments for therapy, and Debbie shares local resources that may be helpful for Emily and her parents.

What local resources are available in your area for children experiencing mental health disorders and their caregivers? Given the care continuum in this case study, how are the interventions implemented by the different nurses alike? How are they different? How do the priorities change as Emily moves through the care system? How do they remain the same?

Section 7: Health Implications

Pediatric mental health disorders have lifelong health implications, as they are part of the child's overall health (National Healthcare Quality and Disparities Report, 2022). Mental health disorders can impede the way a child learns coping skills, develops emotionally, and builds healthy social skills. Pediatric mental health conditions are considered chronic, and even with successful treatment, the child will experience life-long challenges related to their diagnosis. Early diagnosis and treatment are paramount. Children who do not receive early care can have difficulty functioning at school, within their families, and with peers. The challenges experienced in childhood can affect their development and impact their lives into adulthood (CDC, 2024c).

Maintaining whole-body health can be a challenge when a child is experiencing a mental health disorder. Mental health disorders often co-occur with other medical conditions, further complicating an already complicated picture. Mental health disorders can affect a child's diet, exercise, sleep, and stress levels, which all affect physical health (CDC, 2023b). Poor mental health can impact a child's risk for heart disease and hypertension as they transition into adulthood (Murthy, 2024). Some diagnoses, like Tourette syndrome, can affect a child's sleeping pattern, negatively impacting their physical health (Jones et al., 2023).

Pediatric mental health disorders can contribute to more pediatric mental health diagnoses. For example, children who are diagnosed with separation anxiety

disorder are more likely to be diagnosed with panic disorder or another type of anxiety disorder as an adult (Feriante et al., 2023). Children who experience mental health disorders, especially anxiety disorders, are more likely to self-medicate with alcohol and drugs to calm themselves (The American Academy of Child and Adolescent Psychiatry, 2023). Untreated ADHD can contribute to the development of conduct disorder. Children who are diagnosed with conduct disorder but do not receive treatment are at increased risk for developing depression or bipolar disorder. They are also more likely to develop a personality disorder, such as antisocial personality disorder, and develop a substance use disorder. Untreated conduct disorder contributes to violent behaviors and, eventually, criminal activities, which can also affect physical and mental health (Yale Medicine, 2024).

Children who experience PTSD may develop chronic PTSD. It is estimated that 1/3 of patients will continue to experience symptoms a year after their diagnosis, and another 1/3 will experience symptoms after ten years. PTSD often contributes to further mental health complications, including depression, borderline personality disorder, anxiety disorders, substance use disorders, and psychotic disorders. Individuals with PTSD experience higher rates of disability due to educational and occupational difficulties. Additionally, they are at increased risk for suicide (Torrico & Mikes, 2024).

Children who experience mental health challenges can experience a ripple effect of problems. As mentioned previously, they are at higher risk for school absenteeism, which can cause poor academic performance, affecting their ability to pursue higher education or gain employment. The severity of the child's mental health disorder is directly correlated to their performance in school. Treatment can create challenges for caregivers, who may have to sacrifice income to ensure their child can receive health care for their disorder. This creates more stress in

the home, which can adversely affect the child's mental health (Feriante et al., 2023).

Children with mental health disorders, especially those who do not receive treatment, can have catastrophic health implications. In 2021, among high school students, 18% of adolescents reported they had made a suicide plan. Ten percent attempted suicide, and 3% of adolescents surveyed were injured in a suicide attempt (Children's Hospital Association, 2023).

Section 7 Personal Reflection

Think of various mental health disorders children may experience. Among those disorders, what health implications would differ? How would ADHD affect overall health compared to a diagnosis of schizophrenia or social anxiety disorder? What information would be beneficial for caregivers to improve the overall health status of their children?

Section 7 Key Words

Health implications - the impact a situation or condition has on a person or community's physical or mental health

Whole-body health - a concept that considers an individual's physical, mental, emotional, and spiritual health

Self-medicate - to use a substance to treat symptoms, such as alcohol illegal or legal drugs, without a prescription

Section 8: Nursing Interventions

Pediatric mental health nurses, like any other nurses, play a vital role in the care of their patients. A thorough and complete assessment can help determine the status of symptoms the patient is experiencing. Pediatric mental health nursing differs from caring for the adult population because interventions must be developmentally appropriate, play therapy is an integral part of treatment, and family-centered care plays a significant role in the treatment plan (Kague, 2023). Pediatric mental health nursing has evolved over the last several decades. In the 1980's, the American Nurses Association outlined the specific scope of practice for pediatric mental health nurses (Delaney et al., 2018). Child and adolescent mental health nurses work in various settings, including inpatient, residential, primary care, and community environments. School nurses and Emergency Department (ED) nurses also work with children and adolescents experiencing mental health disorders.

The goal of inpatient pediatric mental health care is to help the child return to their healthy baseline status of functioning and to help them transition back into the community. Residential care nursing is similar, though the goal is to help the child function in their current setting and develop skills to integrate into the community as a long-term goal. The nurses are responsible both for managing the care of the patient and for managing the care environment (Delaney et al., 2018). When the care environment is calm, other interventions and therapies will be more effective (Kague, 2023). In inpatient mental health care, the group setting, or milieu, is an essential aspect of care. The nurses can observe how the patients interact with other patients, how they engage in their environment, and if they are using skills they have been working to develop. Nurses want to ensure the milieu is a safe environment for all patients. Interventions in the inpatient setting are categorized into four categories: safety, structure, support, and self-management (Delaney et al., 2018).

Safety is the first priority for the environment of care. Nurses ensure there are no items present that a patient could use to harm themselves or others. Nurses must follow their employer's guidelines for safety checks, visitation policies, contraband, and incidents to ensure the safety of their patients. Common spaces are kept in view at all times, and nurses observe for abrupt mood changes. Nurses engage with patients to develop a relationship, which allows them to be more effective if there is an incident or escalation in the unit (Delaney et al., 2018).

Nurses provide structure by maintaining a daily schedule for their patients. This predictability gives patients a sense of safety and assurance that they know what to expect from the day. Transition times during the scheduled day require planning, as this can be a time of higher risk for frustration or aggression. Patients participate in many activities like therapy, school lessons, group sessions, art, and music. Nurses observe how the patient tolerates these environments. While safety must be maintained, nurses must also ensure they support the patient and not just enforce rules to have a therapeutic relationship. Collaborative problem-solving is used when there is conflict. The goal of these interventions is to help the child develop self-regulation skills (Delaney et al., 2018).

Nurses provide support to their patients through engagement. It is vital that the patients feel recognized, responded to, and understood. When nurses are therapeutically engaged with their patients, the patient may be able to recognize and reveal their concerns and anxieties. The focus is on the current milieu environment and how they will integrate what they have learned into their school and home environment. Nurses have to balance the busy pace of the unit with also building connections with their patients (Delaney et al., 2018). Support must also be provided to the patient's family, as they are an integral part of the care plan. The home environment greatly affects the patient's mental health; understanding those dynamics will be helpful for the nurse. The nurse must also

educate the family as they learn to care for their child when they return home (Kague, 2023).

Self-management can mean the child learning how to manage their emotions, or it can also mean learning how to manage the thoughts they are experiencing related to stress, depression, anxiety, or suicidal ideation. Nurses observe responses to different behaviors and help the patient learn how to manage their response by identifying their feelings, how they are triggered, and how to move forward appropriately. When choosing interventions for patients in the inpatient setting, nurses must determine if they are consistent with the program, developmentally appropriate, and facilitate the patient reaching their goals (Delaney et al., 2018). Once implemented, these strategies, along with CBT, play therapy, and medications, can help the child build coping skills (Kague, 2023).

In the primary care setting, much of the nurse's interventions will promote mental health literacy for the patients and their caregivers. Nurses assess and respond to concerning behaviors and statements, which may indicate a need for screening for mental health disorders. Nurses must recognize that, especially in children, mental health problems can manifest in physical symptoms. A child may complain that they are experiencing stomach pain when, in actuality, the source is anxiety. Nurses can be instrumental in the primary care setting by identifying symptoms that should be reported to the provider and educating patients and families on available resources (Delaney et al., 2018).

School nurses can assist with making plans and accommodations for individualized education plans. Possible accommodations may include audio recording class notes, extra time for tests, and preferential seating in the classroom to reduce distractions. School nurses can also help educate teachers and other staff on the different aspects of mental health diagnoses and how to recognize potential

problems. They can also help teachers and caregivers identify community health resources (National Institute of Mental Health, 2024).

Community mental health nursing can include assessments, monitoring symptoms, developing care plans, medication administration, providing treatments, and educating about resources available to the patient (Southern Cross University, 2023). Nurses working in the ER and school nurses need to be able to assess for mental health symptoms, triage, identify resources, and make referrals to providers as needed. Communication with family members is essential in these settings to create patient safety plans. A study conducted in Brazil helped mothers identify developmentally appropriate ways to engage in play with their infants. As a result, these infants had more advanced cognitive and physical development than the control group peers. The interventions in this study, like showing mothers how to use household items for play, could be replicated in the community to improve the achievement of developmental milestones, thus reducing the risk for mental health disorders (Scott et al., 2016).

Some pediatric mental health nursing interventions will vary by diagnosis. For ADHD in children and adolescents, the nurse may work with the patient and caregivers to create routines, get organized, learn to manage distractions, limit choices, and teach the caregivers how to communicate clearly and specifically to help caregivers understand how to help their child plan, implement incentive programs, teaching effective discipline techniques, and creating positive opportunities to help build the child's self-esteem (Open RN, 2022). For depression and anxiety disorders, nurses must educate the child to understand their medication regimen and educate families on how to facilitate a healthy environment. For ODD and CD, nurses work with families to create behavior management plans and how the families can respond in more therapeutic ways (Open RN, 2022).

Section 8 Personal Reflection

How do pediatric mental health nursing interventions differ from other nursing interventions? How are they similar? Based on the information learned in this course, why do you think it is necessary for nurses in all settings where children are treated to understand the essentials of pediatric mental health care? What interventions do you feel are most important to include in care planning? What can you change in your practice to improve outcomes for patients?

Section 8 Key Words

Milieu - a person's social environment; in psychiatric care, it refers to the common areas of the unit

Self-management - the ability to regulate one's own emotions, thoughts, and behaviors in a way that is acceptable and productive

Individualized Education Plan (IEP) - A document used in the school setting to outline a child's unique educational needs that outlines goals and interventions needed for success

Section 9: Conclusion

Nurses play an essential role in improving access to pediatric mental health services and improving the quality of services children receive. They are the frontline of educators of caregivers and patients to help them recognize the symptoms of mental health disorders, as well as provide referrals and resources to help improve mental health.

Pediatric mental health is a costly issue in the United States. It is reported that the cost for American society is \$247 billion annually (CDC, 2024b). In 2022, the

Biden-Harris administration pledged almost \$300 million to help strengthen school-based mental health programs, confirming that pediatric mental health treatment is a national priority (National Healthcare Quality and Disparities Report, 2022). Nurses can play an integral role in reducing mental health crises in children. Providing education to the community can help increase awareness of mental health disorders in the pediatric population, as well as reduce the stigma of these disorders. Nurses can be a part of initiatives, such as reducing bullying, to help decrease the occurrence of risk factors. Through telehealth, nurses can help screen patients for symptoms and increase access to mental health care, especially for those who experience challenges with accessing in-person care (Abrams, 2023).

Research continues to improve screening and diagnostics. Genetic research is contributing to identifying more children at risk for mental health disorders. New psychotherapeutic and pharmacological interventions are also being studied. It is important that these studies be conducted with experimental groups of children, as we know they are not just small adults but have their own unique risk factors and effective interventions (National Institute of Mental Health, 2024).

Nurses who are aware of pediatric mental health disorders are prepared to identify symptoms of those disorders and communicate with providers. They can help determine what screening tools are needed. Nurses can also help identify risk factors, educate caregivers on how to identify concerning symptoms, and educate them about resources for follow-up. Understanding treatment modalities is essential so that nurses can monitor patients appropriately and advocate for their patients when symptoms are not improving with current treatment. Effective nursing interventions can make a difference in the outcomes for children with mental health disorders.

Section 9 Personal Reflection

How will this course affect your clinical practice? How can you advocate for improved mental health for the pediatric population?

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