



Assessment of Anxiety Disorders in Children and Adolescents

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Introduction

Anxiety is a normal human emotion that can be both adaptive and protective (Nebel-Schwalm & Davis, 2013). Anxiety is what drives a person to exercise caution in dangerous situations (e.g., stopping to check for oncoming traffic when changing lanes or stepping away from a steep cliff). While fear and anxiety can be normal, and even necessary, these emotions can also become maladaptive and impairing if left unchecked (e.g., becoming so frightened to the point of avoiding driving or refusing to climb a ladder to change a lightbulb). When assessing for anxiety disorders, it is pertinent to consider developmental appropriateness, frequency and severity of symptoms, and impairment in functioning. Anxiety disorders differ from the normative emotion of anxiety by being excessive, persisting beyond developmentally appropriate periods, persisting for extensive durations, and causing significant impairment (American Psychiatric Association, 2013).

Occurrence and Sociodemographic Variables

The prevalence of anxiety disorders in children and adolescents varies among the specific disorders; however, generally about 6.5% of children meet criteria for at least one anxiety disorder by the age of 18 (Polanczyk et al., 2015; Spence et al., 2017). The most prevalent anxiety disorders in adolescents are specific phobia (20%) and social anxiety disorder (8.6%; Kessler et al., 2012). Recent research that included a younger age range (4–7-year-olds) by Spence et al. (2017) found that separation anxiety was the most prevalent (4.3%), followed by social anxiety (2.3%) and generalized anxiety (2.2%). The least common by far is selective mutism, with rates of 0.03–0.2% (Higa-McMillan et al., 2014). In general, anxiety disorder rates are higher in girls than in boys (McLaughlin & King, 2015). Kessler et al. (2012) found that this difference was more evident based on the anxiety disorder. For instance, in separation anxiety disorder, social anxiety disorder, agoraphobia, and generalized anxiety disorder, adolescent females were almost twice as likely to be diagnosed; however, in specific phobias and panic disorder, rates were about equal (Kessler et al., 2012). This difference failed to exist when stud-

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ies looked at parent reports as opposed to child reports of anxious symptomology (Wren et al., 2007; Ebesutani et al., 2011). These findings suggest that more research is necessary to understand the gender differences in anxiety disorders and what may be causing these differences. In terms of age, anxiety disorders tend to remain stable but alter in nature over time (Weems & Costa, 2005). Typically, younger children report more specific phobias and fears related to separation, while older children and adolescents endorse more social anxiety and generalized anxiety (Broeren & Muris, 2009; Weems & Costa, 2005). Additionally, research indicates a correlational relationship between anxiety and socioeconomic status (SES). Both lower income and lower status predict increased anxiety (Guerrero et al., 2006; Vine et al., 2012). However, it is proposed that variables related to SES rather than SES itself may be the maintaining factor in this relationship.

Symptom Presentation

It can often be difficult to distinguish between anxiety disorders due to their similar nature in presentation. However, each disorder is marked by certain defining characteristics that allow for distinction. In assessing anxiety disorders in youth, it is critical to determine both the presence (i.e., referring to the severity and impairment criteria) and type (i.e., referring to the defining features) of the anxiety disorder. The *Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5)* recognizes seven specific anxiety disorders, each with its own key features: separation anxiety disorder, selective mutism, specific phobia, social anxiety disorder, panic disorder, agoraphobia, and generalized anxiety disorder (American Psychiatric Association, 2013).

Separation Anxiety Disorder

Separation anxiety disorder (SAD) is defined by experiencing excessive anxiety and distress related to separation from home or from caregivers. In contrast to most other anxiety disorders, the prevalence of SAD decreases with age (Costello et al., 2003). Due to separation difficulties being developmentally appropriate for young children to experience, SAD should not be diagnosed in children and adolescents below the age of 6 years. Like all anxiety diagnoses, developmental appropriateness should be considered. For example, it may be appropriate for a 7-year-old to fear being left alone. However, a 15-year-old who becomes distressed when his or her parents leave for work and refuses to be left alone is of clinical concern. Youth with SAD often worry about being kidnapped, getting lost, or having something bad happen to their parents or themselves. Additionally, children and adolescents with SAD can often experience school refusal behavior (Higa-McMillan et al., 2014). School refusal can be extremely interfering for the child and the child's family as it reduces learning opportunities and often results in work absences for family members.

Selective Mutism

Selective mutism (SM) is characterized by a lack of speech in social situations (e.g., school) in children who exhibit no trouble speaking in other settings (e.g., at home with family). Due to its focus on speaking behavior, it is important to note that SM cannot be diagnosed in children who lack knowledge of the primary language and cannot be explained by a communication disorder. Children with SM often experience such severe distress speaking in settings that they may fail to communicate if they are in pain or need to use the restroom. Social anxiety disorder is a common comorbidity in children with SM (estimates of about 65%; Kristensen, 2000); however, it is possible for cases of social anxiety disorder to appear as SM. For example, a child with a speech impediment or an accent may be worried about how he or she will be negatively judged by their peers, thus, avoiding conversations and speaking in front of others in social situations. While the child appears to be mute, the avoidance

of speech may be better explained by their fear of embarrassment and negative judgment (i.e., social anxiety disorder).

Specific Phobia

Youth with specific phobias (SP) experience pronounced fear when in the presence of or anticipating certain objects or situations. These fears are disproportionate to the degree of danger they pose. SP falls into five categories (animal, natural environment, blood-injection injury, situational, and other), with the most common in children and adolescents being animal and natural environment (Essau et al., 2000; Last et al., 1992). In addition to the great fear and distress, children and adolescents with SP also limit their developmental experiences by avoiding feared situations and objects (Ollendick et al., 2004). For example, a child who is afraid of insects may avoid playing outside with friends, resulting in them missing out on associated activities and social opportunities. When assessing for specific phobias, it is important to have a developmental perspective. It may be developmentally appropriate for a young child (e.g., 4 or 5 years old) to be afraid of shots; they may even cry or scream when administered. However, a 14-year-old who screams, kicks, and requires restraint when receiving shots is of clinical concern.

Social Anxiety Disorder (Social Phobia)

Social anxiety disorder (SocAD) is characterized by marked and persistent fear in social situations. These social situations can involve being observed by others, social interactions, or performing in front of others. Children and adolescents with SocAD may often be anxious about meeting unfamiliar people, speaking in front of their class, or eating in front of others. They often fear that something they do in a social situation will be negatively evaluated. There have been mixed findings regarding the directionality of SocAD and peer relational problems (Gazelle & Ladd, 2003; Morris, 2004). However, associated characteristics of youth with SocAD are social skill deficits, shyness, and difficulty with peers (Higa-McMillan et al., 2014).

Panic Disorder

Panic disorder (PD) is defined by recurrent and unexpected panic attacks. These panic attacks involve abrupt, intense physical symptoms (e.g., sweating, racing heart, shortness of breath, nausea). Children and adolescents with PD often experience panic attacks that induce intense fear that begins with no warning, typically lasting for 10 to 20 min. In extreme cases, these panic attacks can last up to an hour. Panic attacks are associated with higher levels of suicide ideation and attempts (Goodwin & Roy-Byrne, 2006) as well as respiratory illness (Craske et al., 2001). Prevalence of PD in children and adolescents is still rather rare compared to other anxiety disorders and has been found to be between 0.5% and 5% in community samples and equally prevalent in males and females (Diler, 2003). Even so, PD has one of the highest comorbidity rates of all anxiety disorders, with up to 90% of children who have PD also having another anxiety disorder (e.g., generalized anxiety disorder, SAD) and/or mood disorder (e.g., major depressive disorder, bipolar disorder; Masi et al., 1999).

Agoraphobia

While often accompanying PD, agoraphobia can also be experienced in isolation. Agoraphobia is the fear of being in situations in which escape or receiving help would be difficult if a panic attack ensued. While agoraphobia can be seen in children, onset typically peaks in later adolescence and in early adulthood (American Psychological Association, 2013). In a community sample of adolescents aged 13–17 years, the prevalence of agoraphobia was approximately 1.8% (Kessler et al., 2012). Some of the most avoided environments by children and adolescents with agoraphobia are shopping malls, cafeterias, crowds, elevators, and movie theaters (Kearney et al., 1997). Youth experiencing severe

symptoms of agoraphobia may even become afraid to leave their house altogether (American Psychological Association, 2013). This can lead to insufficient learning and social opportunities during critical developmental periods.

Generalized Anxiety Disorder

While most of the aforementioned anxiety disorders focus on anxiety induced by specific situations or are related to certain environments or objects, generalized anxiety disorder (GAD) is associated with excessive and persistent worry about a variety of topics (American Psychological Association, 2013). In youth, these topics often consist of worries related to school, sports performance, peer relations, and worries about the past or future. For instance, a child with GAD may constantly worry about making good grades, being good enough on their sports team or in their band, their social and interpersonal relationships, and the health of their family members. Those with GAD often have the aforementioned worries daily and have trouble controlling their worried thoughts, often interfering with their daily life functioning. Associated characteristics can include feeling a lack of control over their circumstances (Frala et al., 2010) and being unable to recognize low-frequency events (Silverman et al., 1995). Separate studies of youth in America, Australia, and Iran indicate prevalence rates of GAD at 3.0%, 2.3%, and 2.6%, respectively (Burstein et al., 2014; Mohammadi et al., 2020; Spence et al., 2017).

Etiology

Historically, the influence of four major etiological pathways has been explored in child anxiety: classical conditioning, modeling, negative information transfer, and nonassociative accounts (Davis et al., 2017). Other explanations for anxiety development can be found in the areas of genetics (Bartels et al., 2007; Beidel & Turner, 1997), neurobiology (Craske et al., 2009), temperament (Pérez-Edgar & Fox, 2005), and environmental family influences (Bögels & Brechman-Toussaint, 2006). Research has shown that anxiety has a significant genetic component (Bartels et al., 2007; Beidel & Turner, 1997). Genetic contributions have been shown to account for the largest amount of variance when compared to environmental factors (Eley et al., 2003; Hallett et al., 2009). Bolten and colleagues (2006) found that in youth with SocAD and SP, genetics accounted for the largest proportion of variance (73% and 60%, respectively). Other research has supported these claims (Hallett et al., 2009), finding that in young children, social anxiety and fear produced the highest heritability rates. Additionally, the volume, activity, and connectivity of various brain structures (e.g., amygdala, hippocampus, prefrontal cortex, anterior cingulate cortex) have been correlated to anxiety (De Bellis et al., 2000; Etkin et al., 2009; McClure et al., 2007). Various models have been proposed to also explain how youth temperament influences youth anxiety. A common model used to explain this relationship looks at behavioral inhibition (Kagan, 1997). Behaviorally inhibited children, characterized by hypervigilance to their environment (Degnan et al., 2010), are at a higher risk for developing anxiety disorders, specifically SocAD, SAD, and GAD (Hudson & Dodd, 2012). Additional literature also supports etiological models focused on environmental family factors. Those correlated with increased child anxiety include factors such as attachment (Colonessi et al., 2011), parental overcontrol (Drake & Ginsburg, 2012), anxious modeling (Chorpita et al., 1996), and cohesion and conflict (Bögels & Brechman-Toussaint, 2006). While there are many accepted etiological models for youth anxiety, it is commonly accepted that youth anxiety is best understood as some combination of several of these factors, and newer models have expanded even beyond these (see Craske et al., 2014).

Comorbidities

Comorbidities among anxiety disorders are common. Anxiety disorders have high rates of comorbidity within themselves and with major depression and alcohol and drug use. For instance, in a study of children and adolescents with specific phobias, about one-third of the children also met criteria for a depressive disorder (Essau et al., 2000). However, there are higher rates of comorbidity among anxiety disorders. Hammerness et al. (2008) found that 28% of children diagnosed with an anxiety disorder had more than one. Comorbidity among anxiety disorders has been found to occur at an earlier age of onset and to have a more chronic course (Hofmeijer-Sevink et al., 2012). For example, children and adolescents with a specific phobia often have more than one (Ollendick et al., 2009) and also meet criteria for other anxiety disorders (SocAD and SAD; Lewinsohn et al., 1997). In addition, children and adolescents with SM often also meet criteria for SocAD (Palitz et al., 2019). Thus, when evaluating anxiety disorders, it is critical to keep the high comorbidity rates in mind as presenting symptoms might meet criteria for multiple disorders.

Evidence-Based Assessments

Untreated childhood anxiety disorders and fears can lead to life-long problems that cause interference in areas of daily functioning and negatively impact well-being (Kendall et al., 2004). Competent treatment of childhood anxiety and fears is dependent upon a detailed assessment to arrive at the proper diagnosis (Davis, 2009). The use of evidence-based assessment measures increases the accuracy of diagnoses. As such, Silverman and Ollendick (2005) posit that the best approach to assess anxiety and its disorders is the use of a multi-method, multi-informant procedure that allows for comprehensive information gathering. In this way, crucial information regarding emotional functioning and symptom presentation in different physical environments can be fully evaluated (DeLos Reyes, 2011). However, the multi-informant strategy can result in discrepant information regarding the presence and severity of a childhood anxiety disorder based on the information received from children themselves, parents, and teachers (Brown-Jacobsen et al., 2011; DiBartolo & Grills, 2006). Discrepant information should be closely examined by the clinician and given full consideration within the assessment process to increase accuracy and understanding (Davis et al., 2017).

Davis and Ollendick (2005) stress the importance of assessing the three components of anxiety (i.e., cognition, behavior, and physiology) as well as the subjective emotional response which are all needed to arrive at an accurate diagnosis and subsequently create an efficacious treatment plan. Common assessment procedures used for childhood anxiety include unstructured interviews, diagnostic interviews, questionnaires, physiologic measures, and observational methods. Commonly used assessment techniques of each of the aforementioned techniques will be reviewed including information regarding clinical application and psychometric properties.

Unstructured Interviews

The clinical interview is the most common assessment method for any type of psychological condition. Its tripartite goals are to establish rapport, define symptom patterns, and determine an accurate diagnosis (Herbert et al., 2010). The unstructured interview is a free-flowing interview that does not adhere to a standardized format (Jones, 2010). It is advisable to begin the assessment phase with an unstructured interview to establish rapport between the child, family, or caregiver, and the clinician. This informal, less structured time also allows the child to acclimate to the environment. There are several important content domains in which the clinician should gather information during the unstructured interview, including the presenting problem, the reason for seeking treatment, develop-

mental, academic, and social histories, home life/daily routine, family mental and physical health histories (including medications/substances), and any other concerns the family may have. The information gathered is used to help with case conceptualization by incorporating important family contextual information and identifying areas requiring further investigation. Unstructured clinical interviews, though very helpful in rapport building, can be unreliable and prone to clinician bias. Adherence to the multi-method assessment procedure is recommended to increase evidence-based clinical accuracy (Frick et al., 2010).

Diagnostic Interviews

After the unstructured interview is conducted, the clinician should consider administering a semi-structured or structured interview, both of which provide templates to assess information about the symptomatology within diagnostic categories of the *DSM-5* (McTate & Leffler, 2017). Structured interviews require the clinician to use exact wording of the questions and the exact procedure for interpretation, often without the opportunity to ask clarifying questions. An advantage of semi-structured interviews is that the clinician can ask follow-up probes.

The Anxiety Disorders Interview Schedule for DSM-IV Child and Parent Version

The Anxiety Disorders Interview Schedule for DSM-IV Child and Parent Version (ADIS-IV: C/P) is very widely used, semi-structured interview that is designed for use with children 6–18 years old (child version) and with adults and caregivers (adult version; Silverman & Albano, 1996). The ADIS-IV: C/P assesses for a range of internalizing and externalizing disorders. The format includes a module for each disorder (i.e., social phobia, specific phobia, generalized anxiety disorder) and other common disorders and problems in youth (i.e., major depressive disorder, attention deficit hyperactivity disorder, oppositional defiant disorder). Abbreviated screening measures are included to address other problems such as eating disorders, schizophrenia and enuresis. The ADIS-IV: C/P can be administered in part or in whole. Specific modules can be identified for administration to probe for specific disorders or problems. The questions are based on the *Diagnostic Statistical Manual, Fourth Edition (DSM-IV)* criteria (Silverman & Albano, 1996).

The ADIS-IV: C/P is administered by asking the respondent (either child or parent/caregiver) to rate the severity of an endorsed symptom on a 9-point scale from 0 (not present) to 8 (very severe/disturbing/impairing). Symptoms of 4 or greater are considered to be indicative of clinical significance likely warranting a diagnosis. A clinical consensus process may be performed where the clinician integrates the information from both the parent/caregiver and child in order to address both concordance and discrepancies in making a final diagnosis (Silverman & Albano, 1996).

The ADIS-IV: C/P has been used more often in research on youth anxiety disorders in comparison to other measures and has the strongest evidence of efficacy (Silverman & Ollendick, 2005). It has been shown to have adequate interrater reliability and test-retest reliability (Grills & Ollendick, 2003; Reuterskoid et al., 2008; Silverman et al., 2001). Concurrent validity and convergent validity of the ADIS-IV: C/P have also been empirically demonstrated (Langer et al., 2010; Wood et al., 2002). Potential disadvantages of the ADIS-IV: C/P are that clinician training is required, and it can take more than 2 hours to administer in its entirety (Evans et al., 2017). There is an updated version of ADIS that uses *DSM-5* criteria, though it is not widely available (Davis et al., 2017). The ADIS-IV has been translated into several languages including French, Portuguese, and Spanish (Grisham et al., 2004). In addition, there is also an autism spectrum disorder addendum (see section on Special Populations in this chapter; Kerns et al., 2017).

Kiddie-Schedule for Affective Disorders and Schizophrenia for School Aged Children-Present and Life Time Version (K-SADS-PL)

The Kiddie-Schedule for Affective Disorders and Schizophrenia for School Aged Children-Present and Life Time Version (K-SADS-PL) is a semi-structured diagnostic interview designed to measure current and past symptoms of a broad range of internalizing and externalizing disorders in children aged 6–18 years old. The primary diagnoses it assesses are anxiety, mood, and psychotic disorders as well as various disruptive behaviors. The K-SADS-PL is administered to both the parent/caregiver and child and includes available ratings from all sources including school sources, if available. If the child is a pre-adolescent, the parent administration should be conducted first. When working with adolescents, the administration should begin with them (Kaufman et al., 1996).

The administration of the K-SADS-PL is a multi-phase process that begins with an unstructured interview. The subsequent phases include a diagnostic screening interview—a gathering of demographic, health, presenting problem and history, school and emotional functioning, etc.; the screen interview—a survey of current and most severe past symptoms of different diagnoses; supplement completion checklist—affective disorders, psychotic disorders, anxiety disorders, behavioral disorders, and substance disorders checklists that are given selectively based on the results of the screening interview; summary lifetime diagnosis checklist—a synthesis of all the information from all sources; children’s global assessment scales—a score given to estimate the child’s current level of functioning with an additional score given for children who have a past history of psychiatric symptomatology. Probes are included as examples to help elicit more information to score an item and do not have to be used in verbatim. Most of the scoring of the K-SADS-PL is scored on a 4-point scale with 0 = no information is available, 1 = symptom is not present, 2 = subthreshold levels of symptomatology, and 3 = threshold criteria. Other items are rated on a 3-point scale with 0 = no information, 1 = symptom is not present, and 2 = the symptom is present. The clinician must determine a final summary rating for each diagnostic area using the ratings from all sources. If there are discrepant ratings, the clinician must use good clinical judgment in determining summary ratings (Kaufman et al., 1996).

The K-SADS-PL has good psychometric properties. Kaufman et al. (1997) reported good concurrent validity and good to excellent test-retest reliability. Kragh et al. (2019) reported good convergent and divergent validity for anxiety disorders, depressive disorders, oppositional defiant disorder, and attention deficit disorder in children in a sample of Nordic youth. Birmaher et al. (2009) reported good convergent validity, acceptable divergent validity for emotional disorders, and good interrater reliability in a preschool sample of 2–5-year-olds. The K-SADS-PL has been written and translated into 16 languages (Kaufman & Schweder, 2004).

National Institute of Mental Health Diagnostic Interview Schedule for Children Version IV (NIMH DISC-IV)

The National Institute of Mental Health Diagnostic Interview Schedule for Children Version IV (NIMH DISC-IV) is a highly structured interview that is based on *DSM-IV* criteria to assess more than 30 psychiatric diagnoses including anxiety disorders, mood disorders, schizophrenia, disruptive disorders, substance use disorders, and miscellaneous disorders (i.e., eating disorders, pica). The NIMH DISC-IV has two versions: DISC-Y is designed for youth ages 9–17 and DISC-P is for parents and caregivers of youth ages 6–17. Information from these interviews can be examined separately or combination. These parallel versions are available in paper and computerized format, both of which are interviewer administered. A self-administered audio computerized version is also available (Shaffer et al., 2000).

The questions comprising the DISC-IV are short with most required answers being either “yes” or “no.” The clinician must read the questions verbatim. There are just shy of 3000 questions in total examining the presence of a diagnosis within the last 12 months and the last 4 weeks. The components

of the DISC-IV include an introductory module which gathers demographic information and provides information to the respondent about the scope and format of the interview; 6 modules to assess anxiety disorders, mood disorders, disruptive behaviors, substance use disorders, schizophrenia, and miscellaneous disorders with additional questions that assess specific domains of impairment; a final optional module called whole life which assesses whether diagnoses present in the last year occurred after age 5 and before the current year. The DISC-IV is typically computer scored as hand scoring can be complex and less accurate. The DISC-IV has been translated into Spanish (Shaffer et al., 2000).

The psychometric properties of the DISC-IV are mixed. The interrater reliability of the DISC-IV ranges from moderate to substantial for anxiety, mood, and externalizing disorders, and has good test-retest reliability (Shaffer et al., 2000). Roberts et al. (2005) reported good interrater reliability between clinical diagnosis and the DISC-IV for adolescent inpatients. However, Lewczyk et al. (2003) reported only fair interrater reliability for all diagnostic categories in a sample of youth where 50% of the sample was comprised of minority participants (Latino, African American, biracial, and Asian American Pacific Islanders). Bravo et al. (2001) found only fair to moderate test-retest reliability for the Spanish version of the DISC-IV. Finally, Sharp et al. (2011) examined the cultural appropriateness of using the DISC-IV in South Africa and determined that a number of adaptations need to be made.

Questionnaires

Questionnaires are another very useful tool in assessing anxiety disorders and making accurate diagnoses. The use of questionnaires typically includes a multi-informant process that allows the clinician to gather information from several sources, such as the youth, parents, and teachers. An advantage of questionnaires in comparison to interviews is that they are less expensive, easy to administer, and provide an opportunity to collect information from several sources (Davis et al., 2017).

The Multidimensional Anxiety Scale for Children, Second Edition (MASC-2)

The Multidimensional Anxiety Scale for Children, Second Edition (MASC-2; March, 2013) was developed to assess a broader range of anxiety while still maintaining adherence to the construct conceptualization of anxiety that was used in the original version of MASC (March, 1997). The MASC-2 is a widely used, 50-item self-report measure that assesses a range of emotional, physical, cognitive, and behavioral symptoms of anxiety for youth aged 8–19 years (March, 2013). There are six scales and four subscales, the latter in parentheses: separation anxiety/phobias, generalized anxiety disorder, social anxiety (humiliation/rejection, performance fears), obsessions and compulsions, physical symptoms (tense/restless, panic), and harm avoidance. A 4-point Likert scale is used to assess symptomatology—0 = never true about me, 1 = rarely true about me, 2 = sometimes true about me, and 3 = often true about me. The MASC-2 also includes an anxiety probability score that estimates whether the youth has one or more anxiety disorders and an inconsistency index that is used to determine response consistency and reliability. The Multidimensional Anxiety Scale for Children, Second Edition Self-Report (MASC-2 SR), completed by youth and the Multidimensional Anxiety Scale for Children Second Edition Parent (MASC-2P), completed by a parent or caregiver, include parallel items that also give a total score, subscale scores, an anxiety probability score, and an inconsistency index. It is recommended that both parents complete the questionnaire. The MASC-2 can be hand scored or computer scored (March, 2013).

Psychometric analyses of the MASC-2 indicated that internal consistency was acceptable, test-retest reliability was strong, and convergent validity was strong (March, 2013). Moderate construct validity was demonstrated for the self-report form but not for the parent form (March, 2013). Generalizability of the use of MASC-2 with other race/ethnic groups was examined. No significant

differences between the scores of Caucasian, Hispanic/Latino, and African American groups were found, thus suggesting that the MASC-2 is acceptable for use with those race/ethnic groups (March, 2013).

Revised Children's Manifest Anxiety Scale Version 2 (RCMAS-2)

Another widely used self-report questionnaire that assesses anxiety in children and adolescents is the Revised Children's Manifest Anxiety Scale, Version 2 (RCMAS-2; Reynolds et al., 2012). The RCMAS-2 is a 49-item instrument that uses a yes or no response format. It has three subscales that measure different types of anxiety subsets including physiological anxiety, worry, and social anxiety. Two validity scales, defensiveness and inconsistent responding indexes, measure whether the respondent was presenting themselves in an overly positive manner and whether or not the respondent attended to the content items. This paper and pencil questionnaire is hand scored and written at the second-grade level. An audio version is available which may be appropriate for small children and youth with attention or reading problems (Gurly, 2011; Reynolds et al., 2012).

Only a few studies have examined the psychometric properties of the RCMAS-2; however, the scales correlate to the RCMAS scales and it may be appropriate to extend the research from RCMAS to RCMAS-2 (Reynolds & Richmond, 2012). Etkin et al. (2020) evaluated the RCMAS-2 using the rubric by Youngstrom et al. (2017) determining it to have good test-retest reliability, good construct validity, and adequate discriminative validity.

The Fear Survey Schedule for Children-Revised

The Fear Survey Schedule for Children-Revised (FSSC-R) is one of the most widely used self-report questionnaires that assesses specific fears in children 7–16 years old (Ollendick, 1983). Updated twice from the original version, the FSSC-R is an 80-item measure that asks respondents to rate their level of fear for each situation, animal, or object on a 3-point scale (i.e., none, some, or a lot). The FSSC-R assesses five fear factors including: failure and criticism, the unknown, minor injury and small animals, danger and death, and medical fears. FSSC-R scores do not provide an overall level of fear that is associated to a specific anxiety disorder. Instead, particular FSSC-R items are related to particular anxiety disorders such as SAD (Ollendick, 1983).

The psychometric properties for the FSSC-R are fairly strong. Ollendick (1983) provided evidence for its high internal consistency, test-retest reliability, and convergent and divergent validity. Muris et al. (2002) investigated the daily life occurrence of five danger and death fears (i.e., not being able to breathe, being hit by a car or truck, falling from high places, bombing attacks or being invaded, and fire or getting burned). Findings indicated that the items assessing danger and death ranked high when using the FSSC-R and were lower when using a fear list procedure and had low probability of actually happening in daily life. The FSSC-R has been translated into languages for a number of other countries, though psychometric data is not available (Ollendick, 1983).

The Child Behavior Checklist 6–18 (CBCL 6–18) and Related Questionnaires

The Child Behavior Checklist 6–18 (CBCL 6–18; Achenbach & Rescorla, 2001) is widely used to assess behavioral and emotional problems in youth. It is one of several instruments within the Achenbach System of Empirically Based Assessment that includes the CBCL 6–18, the Teacher Report Form (TRF), the Youth Report form (YRF), and the Caregiver-Teacher Report Form (Achenbach & Rescorla, 2000; Achenbach & Rescorla, 2001). The CBCL 6–18 is completed by the parents, the TRF is completed by teachers, and the YSR is completed by youth aged 11–18 years. They each have parallel items, 20 of which measure social competence and the remaining 120 measure problem areas. The CBCL 6–18 provides scores on internalizing, externalizing, total problems, as well as *DSM-IV* related scales. Open-ended questions are included to assess physical problems,

concerns, and strengths. All forms use a 3-point scale (0 = not true, 1 = somewhat or sometimes true, 2 = very true, very often true) to assess behavior that has occurred in the last six months. The Caregiver-Teacher Report Form is used by caregivers and preschool teachers to assess young children between the ages of 1½ and 5 years and includes 91 problem items that uses the 3-point scale used with the CBCL 6–18 and nine open-ended questions. The various measures are self-administered using paper-and-pencil or computer. Items can be given verbally for people with inadequate literacy (Achenbach & Rescorla, 2001).

In terms of psychometric properties, Achenbach and Rescorla (2001) reported high test-retest reliability, high internal consistency, substantial interrater reliability, and good construct validity for non-clinical, clinical, and diverse samples. The CBCL 6–18 has been translated into many languages and multicultural norms are available (Achenbach & Rescorla, 2007).

Screen for Childhood Anxiety Related Emotional Disorders (SCARED)

The Screen for Childhood Anxiety Related Emotional Disorders (SCARED; Birmaher et al., 1997) is a self-report questionnaire that is used to screen for a variety of childhood anxiety disorders including generalized anxiety disorder, separation anxiety disorder, panic disorder, and social and school phobias. The questionnaire is used for youth aged 8–18 years and has a child version that the child completes about themselves and a parent version that is completed by a parent or caregiver. The SCARED has 41 items that are answered using a 3-point Likert scale (0 = not true or hardly true, 1 = somewhat true or sometimes true, 2 = very true or often). The SCARED yields a score for each of five factors (panic/somatic, generalized anxiety, separation anxiety, social phobia, and school phobia) and a total score. It may be taken in a handwritten form, online or by computer (Birmaher et al., 1997).

The SCARED's psychometric properties have been recently evaluated by Etkin et al. (2020) which showed the child version to have good test-retest reliability, construct validity, and discriminative validity. The researchers evaluated the parent version and found it to have excellent test-retest reliability, good construct validity, and excellent discriminant validity. Birmaher et al. (1999) included African American and Latino participants, though most were Caucasian. Several researchers have investigated the cross-cultural application of the SCARED. Hale et al. (2011) conducted a meta-analysis of the cross-cultural psychometric properties of the SCARED as a screening questionnaire for youth in various countries and found it had construct validity. Boyd et al. (2003) found support for the reliability and construct validity of the SCARED in an African American sample of high school students. Su et al. (2008) found that the SCARED demonstrated moderate to high internal consistency and test-retest reliability, moderate parent-child correlation, and good discriminant validity. Finally, Isolan et al. (2011) found that the Brazilian-Portuguese version of the SCARED showed good internal consistency, test-retest reliability, and construct validity. The SCARED is available in 10 languages (Birmaher et al., 1997; Birmaher et al., 1999).

Physiological Assessment of Anxiety

Anxiety is experienced as a response to perceived threat or danger that has a physiological component directed by the autonomic nervous system (ANS). The ANS, which consists of the sympathetic and parasympathetic branches, controls the body's energy in response to threat. When a threat is experienced, a built-in system known as the flight or fight is engaged to get ready to respond by engaging the threat (fight) or fleeing from it (flight). The sympathetic system gets the body ready for action while the parasympathetic system restores the body to normal. When the fight or flight process is engaged, adrenaline and noradrenaline are released from the kidneys which then travel through the body's major systems to prepare for fight or flight. The resulting physiological effects include an

increase in heartbeat rate and heartbeat strength, increase in respiration rate and shallowness, sweating, trembling and shaking, cold extremities, and muscle contractions that can lead to a “freeze” response. The parasympathetic branch of the nervous system works to stop the fight or flight process and restore balance to the body, though restoration takes some time and some effects may remain long term (Bourne, 2015).

Physiological Measures

The assessment of anxiety is often performed with interviews and questionnaires that do not directly measure the physiological experience of anxiety in youth (Davis et al., 2011). Thomas et al. (2012) recommend the use of subjective measures in combination with objective measures of physiological experiences allowing for a more comprehensive assessment. There are several physiological measures that yield information about autonomic nervous system functioning. Heart rate is an indication of sympathetic activation that is determined by measuring the inter-beat intervals (time between beats) in milliseconds with longer intervals representing slower heart rate. Heart rate can be displayed on an electrocardiogram to be viewed by the clinician and youth. Heart rate variability (HRV) measures the change in the distance between heartbeats over time and is influenced by both sympathetic and parasympathetic processes (Thomas et al., 2012). Prinsloo et al. (2013) used an HRV biofeedback device with participants that were instructed to adjust their breathing so that breathing and heart rate covaried, which resulted in decreased anxiety. Another measure of autonomic nervous system activity is blood pressure which is typically taken by a blood pressure monitor. Both systolic (time of heart pumping) and diastolic (time of heart not pumping while filling with blood) pressures are taken and must be interpreted according to age, gender, body mass, and other factors (Thomas et al., 2012). Another way to measure physiological experience is measuring galvanic skin responses. A psychogalvanometer measures the skin conductance or electrodermal activity from the amount of sweat on the skin released secondary to anxiety. Epidermal sweat provides a conduit for the electrical current, which is then recorded. A measure of the galvanic skin response functions as an inference of the autonomic arousal in response to stressful situations (Najafpour et al., 2017). In addition, there are even newer technologies slowly making their way into research assessments (e.g., fMRI, EEG).

Observational Methods

Behavioral observations are another category of assessment methods with youth that allows the clinician to directly observe how youth respond in one or more specific situations, thus objective information can be gathered across settings.

Behavior Avoidance Tasks (BATS)

Behavior avoidance tasks (BATS; Castagna et al., 2016; Haynes, 2001) are designed to quantify/evaluate the degree to which youth approach/avoid a previously feared/avoided situation, such as petting a dog or riding an escalator. The youth is asked to engage a situation or stimulus (e.g., an elevator or a dog) and using low demand instructions (recommended) asked to perform as much of a predetermined task as she chooses. After the youth engages in the feared/avoided situation, a percentage of the possible steps that could be accomplished are usually computed; additionally, other measurements can be taken before, during, and after the task including assessing the youth’s level of compliance, level of distress, and other experiential components, such as heart rate (Castagna et al., 2016; Davis et al., 2017). BATs have been used in the treatment of phobias, social phobia, and obsessive-compulsive disorder (Davis et al., 2017). An adapted form of the BAT, the Revised Behavioral Assertiveness Test for Children (BAT-CR), allows the clinician to assess the youth’s behavior through direct obser-

vation of a series of role plays (Ollendick, 1981). The role plays create social situations that are both positive and negative in order to evaluate social skills. Several behavioral measures can be obtained, such as latency of response, eye contact, and length of response (Davis et al., 2017).

The Trier Social Stress Test-C

The Trier Social Stress Test-C (TSST-C) is the children's version of the Trier Social Stress Test (TSST), a well-established observational assessment method that allows the clinician to evaluate the reciprocal relationship between social evaluative threat and physiological responses (Buske-Kirschbaum et al., 1997; Kirschbaum et al., 1993). The TSST-C was developed for youth aged 7–16 years using a story telling situation instead of a mock interview that is used in the adult version. The TSST-C begins with the youth being told the beginning of a story with the task of finishing the story in front of a committee that praises the youth verbally and nonverbally (unlike the adult version where no feedback is given during the mock interview). Additional instruction given to the youth is to tell a story that is more interesting and more exciting than that told by other youth their age. Then, the youth is given a numeracy skill task which is the complement to the arithmetic task given to adults. Finally, physiological measures of stress, such as cortisol and salivary amylase levels and cardiovascular changes, are taken to assess the level of stress responses (Frisch et al., 2015). Variations of the TSST-C have been examined such as changing the task from finishing a story to introducing oneself to a new class at school which more closely resembles real life youth experiences (Yim et al., 2015).

A number of researchers have studied the use of TSST-C with youth. Hellhammer et al. (2009) suggested that the social evaluative level of threat may be increased or decreased when youth are being evaluated by an adult panel. Foley and Kirschbaum (2010) determined that the social evaluative component may have a different impact based on the course of adolescent development as sensitivity to social stress increases in adolescence. Additionally, more supportive and engaged actions of the panel may mediate the physiological response to the stress task. Stroud et al. (2009) found the physiological reactivity may be present in some measures (i.e., cortisol) and not others (i.e., salivary amylase). Laurent et al. (2015) found that physiological reactivity increased with age and developmental stage, though this was not consistent across physiological measures. More research is needed to investigate the effects of age, puberty, and developmental components on the physiological response to TSST-C (Allen et al., 2017).

Assessment of Anxiety Disorders in Special Populations

The majority of the literature on assessing for anxiety disorders in youth has focused on typically developing children, despite research consistently highlighting high rates of anxiety disorders in youth with other neurodevelopmental concerns like autism spectrum disorder (ASD; Steensel & Heeman, 2017) and Intellectual Disability (ID; Green et al., 2015). Youth with ASD can experience physical and cognitive distress as well as functional impairment from comorbid anxiety symptoms just like neurotypical youth, but these symptoms are often overlooked or overshadowed by their primary ASD diagnosis. For instance, youth with ASD exhibit higher rates of anxiety compared to typically developing youth (Steensel & Heeman, 2017), and 39.6% of youth with ASD have also been found to have at least one comorbid anxiety disorder (van Steensel et al., 2011). These comorbidities highlight the need for multi-method, multi-reporter—particularly parent report—assessments tailored for youth in these populations, especially given the reduced insight and expressive communication abilities some youth in these populations experience (Davis et al., 2012). Moreover, clinicians must be knowledgeable in the core features of ASD, multiple anxiety disorders, symptom overlap between these disorders, and differing presentations of anxiety in youth with ASD to properly differentiate

these symptom clusters and identify comorbidities, as merely extending assessment techniques from typically developing populations to these youth may prove inappropriate (Davis, 2012).

While few diagnostic interview schedules have been developed specifically for youth with developmental disabilities, multiple diagnostic interviews have found promising psychometric properties in neurodivergent youth. The Autism Comorbidity Interview—Present and Lifetime (Leyfer et al., 2006), an interview schedule adapted from the K-SADS to assess for comorbidity specifically in children with ASD, may be an especially promising choice for youth in this population, although it was not designed for youth specifically with ID. While not originally designed for youth with ASD, the ADIS-IV: C/P has demonstrated excellent interrater reliability between parent and child ratings for anxiety and other comorbid disorders in a sample of youth with ASD (Ung et al., 2014). More recently, Kerns et al. (2017) created an ASD addendum to the ADIS:P—ADIS/ASA. This addendum assesses specifically for ambiguous, anxiety-like symptoms that have traditionally been associated with either traditional anxiety presentations, like GAD, or subsumed under symptoms associated with ASD with five new categories: fears of change, negative reactions to change, social fear, unusual phobias, and special interest fears (Kerns et al., 2017). Promising interrater reliability was found for both traditional anxiety symptoms and the ambiguous anxiety-like symptoms measures on the ADIS/ASA in a sample of parents reporting on their youth with ASD (Kerns et al., 2017).

Questionnaires may also provide additional useful information on specific symptom clusters that may require additional attention in the assessment process. Three broad psychopathology questionnaires have been developed specifically for youth with intellectual or developmental disabilities: The Reiss Scale for Children's Dual Diagnosis (Reiss & Valenti-Hein, 1994), the Nisonger Child Behavior Rating Form (Aman et al., 1996), and the Developmental Behavior Checklist (Einfeld & Tonge, 2002) have all been developed to assess for broad psychopathology in youth with ID or other developmental disabilities. Additionally, the ASD Comorbidity for Children Scale was designed specifically to assess for broad psychopathology in youth with ASD (Matson & Wilkins, 2008). When these questionnaires are not available, some questionnaires originally designed for neurotypical youth have also demonstrated promising psychometrics. For instance, the CBCL has historically been used successfully to identify potential comorbidities in youth with ID or developmental disabilities (Reardon et al., 2015), and the BASC-2 (Kamphaus & Reynolds, 2007) was normed on one percent of children with ASD.

While broad psychopathology measures can be useful in informing the clinician on broad symptom clusters that may require further assessment, anxiety-specific questionnaires may provide more detailed information on specific fears, worries, or negative thoughts that may be present. The SCARED (van Steensel et al., 2013), MASC (White et al., 2015), Revised Children's Anxiety and Depression Scale (RCADS) and the Pediatric Anxiety Ratings Scale (PARS; Wigham & McConachie, 2014) have all been used to assess for anxiety in youth with ASD, although these ratings should be interpreted with caution due to differing factorial structures in these populations on some questionnaires (Vasa et al., 2016).

Similar with neurotypical youth, a clinician must understand how to disentangle similar symptom presentations and transdiagnostic constructs in order to make accurate diagnoses. Clinicians must also have particular knowledge on varying presentations of ASD and how various comorbidities may present differently in these populations. For instance, avoidance of social interactions could be due to a lack of interest in social relationships associated with one's ASD diagnosis, a fear of being negatively evaluated by others associated with SocAD, or a lack of understanding on how to navigate these social interactions, which could be associated with one or both of these diagnoses (Kreiser & White, 2014; Vasa et al., 2016). Likewise, specific hand movements or body postures could be indicative of repetitive body movements associated with ASD, restlessness associated with Attention-Deficit/Hyperactivity Disorder (ADHD), or nervousness associated with anxiety. Moreover, the content of specific fears or worries may differ in youth with developmental disabilities compared to neurotypical

youth. Kerns et al. (2014) found that 48% of their sample of youth with ASD met criteria for a typically presenting anxiety disorder based on *DSM-5* criteria. Moreover, promising psychometrics were found in this population for an atypical anxiety presentation marked by impairing fear or worry about ASD-related challenges (e.g., social rejection, sensory aversions, adaptability to change), and this presentation was found to be associated with both ASD-traits and risk for anxiety (Kerns et al., 2014). Given potential difficulties in perspective taking or expressive language abilities, behavioral observations and functional assessments may be useful in eliciting these behaviors to then be differentiated. Moreover, as previously stated, diagnostic interviews specifically designed to assess for these atypical presentations can aid in differentiating diagnoses, including differentiating social fears that are and are not associated with fear of negative evaluation from others, phobias with an unusual focus (e.g., men with beards), anxiety surrounding access or loss of access to a special interest, and anxiety surrounding from abrupt changes or changes in routine (Kerns, 2015).

Overall, comorbidities in youth with ASD is common, and recent work has strived to create and adapt tools to accurately assess for these comorbidities, although there is still much to be done. Further, ASD and various anxiety disorders can often have similar symptom presentations, and youth with ASD may demonstrate more atypical presentations of anxiety, requiring skilled clinicians with experience in differentiating between these constructs using diagnostic interview, questionnaires, behavioral observations, and functional assessments.

Case Conceptualization

Following an integrated assessment process, the clinician should have a detailed conceptualization of the client that includes their family and environmental history, fears or worries endorsed about specific ideas, situations, or scenarios, cognitions and/or behavioral avoidance associated with these anxiety-inducing situations or concepts, physiological responses during these experiences, and the level of intensity and interference resulting from these worries. The clinician must then begin to disentangle the reported information into distinguishable disorders that the client does or does not meet *DSM-5* criteria for. Specifically, the assessor must determine (1) the normality of the endorsed symptom, (2) the frequency and/or severity of that symptom, (3) the interference resulting from that worry in the individual's life, (4) the specificity of that symptom (i.e., some symptoms may be characteristic of several disorders), and (5) the length of time the symptom has persisted.

For instance, if a specific fear or worry is endorsed, the clinician must first discern if this worry is normative for the client's age, environment, and culture (e.g., a fear of talking to unfamiliar adults may be somewhat normative for a toddler or young child, depending on the intensity of that fear). The clinician must then determine the frequency and intensity of these fears or worries and the resulting interference in the individual's life. For instance, most individuals may report some worry about their school or work performance, but this worry may be atypical in its intensity if the individual reports worrying about this for hours a day and reports difficulty distracting themselves from that worry. Likewise, while many individuals may report some fear before performing in front of others (e.g., public speaking), if the fear is so great that the individual attempts to stay home from school on the days of a class presentation or can only complete it while experiencing great distress (e.g., a racing heart, shaky muscles, sweating, catastrophic cognitions), then this fear is likely interfering with the individual's ability to complete tasks required of them. The length of time symptoms persist for also helps differentiate clinical from subclinical anxiety. While worries or fears regarding transitions or upcoming stressors in life (e.g., worry about starting a new school year, fear before giving a presentation) may be normative, symptoms that persist for longer periods of time may be more indicative of a more relentless and impairing clinical diagnosis.

Obtaining the following information provides a clearer depiction of the presenting concerns first brought up during the unstructured interview and begins to elucidate potential explanatory factors behind these concerns; however, the information obtained through this process can often be inconsistent and, at times, contradictory. Myriad factors—including comorbidity, symptom specificity, and multiple informants—can impact the consistency and decipherability of information provided and understanding of how to disentangle these factors can aid in reducing barriers to accurate clinical assessments.

Comorbidity and Differential Diagnosis

Comorbidity within youth anxiety is more common than not. Additionally, several anxiety disorders have similar symptom presentations, which can be partially explained by similar explanatory constructs underlying multiple disorders. For instance, fear is the central construct across several clinical disorders (e.g., SP, SocAD, PD), but the content of these fears is critical in differentiating these diagnoses. Fears about the same stimuli can also be indicative of different disorders depending on the specificity of the automatic thought associated with the fear (e.g., a fear of using public restrooms could be indicative of a SP, SocAD, or OCD depending on the associated cognitions). Worry is also a transdiagnostic construct that is a component of several disorders. While pervasive worry is the hallmark of GAD, youth with pure GAD and pure SocAD often report similar levels of worry (Hearn et al., 2017; Whitmore et al., 2014).

Likewise, the physical symptoms and resulting avoidance following exposure to these feared stimuli is often very similar. For instance, a child with a SP of dogs may report various physical symptoms (e.g., racing heartbeat, shortness of breath, sweating) and may scream, cry, or attempt to escape when exposed to a dog, while youth with SocAD may also report intense physical discomfort before presenting in front of a group and even cry or attempt to avoid the situation. Youth with either of these disorders may demonstrate similar symptom presentations; however, while the resulting symptoms in SocAD and SPs arise following a fear of a specific stimulus (e.g., threat, being observed or evaluated by others), the panic symptoms indicative of a PD result from the fear of the panic attack itself (Crozier et al., 2011).

These similarities in both content and symptom presentation can further complicate interpretations made from various assessment tools and create barriers to accurate assessments. For instance, while many clinicians use questionnaires as a barometer for presenting concerns, they may need to probe further throughout the assessment as many questionnaires have not demonstrated diagnostic efficiency at identifying specific anxiety disorders. Van Meter and colleagues found the internalizing subscale of the CBCL 6–18 cannot significantly discriminate youth with any anxiety disorder from others as well as youth with GAD from others, with no combination of subscales significantly improving on the performance of the internalizing subscale (Van Meter et al., 2014). However, the items on the CBCL 6–18 prevent accurate identification of other anxiety disorders. Additionally, the original MASC (designed specifically to identify multiple types of anxiety disorders) demonstrated moderate predictive power at identifying female adolescents with GAD, but it did not have adequate predictive power at identifying female adolescents with SocAD (Dierker et al., 2001). Several diagnostic interviews have promising psychometrics at identifying multiple anxiety disorders (see previous sections), but skilled clinicians still need the tools to disentangle the similarities between symptom content and presentations and comorbidities to create an accurate conceptualization of the client.

Knowledge of current comorbidity rates may provide clinicians with information on other potential diagnoses that should be assessed for when a specific symptom is endorsed. Further, knowledge of explanatory factors (e.g., harm avoidance, fears of negative evaluation, being watched, disgust

sensitivity) underlying transdiagnostic constructs like fear and worry can aid clinicians in disentangling similar symptom presentations.

Multiple Reporters

Obtaining information from multiple sources reporting about several environments provides valuable context into the youth's life; however, integrating this information into a cohesive conceptualization can also further complicate assessment processes, particularly when the provided information is often discordant or contradictory. Diagnostic interviews like the ADIS-IV: C/P and the DISC-IV have both been historically demonstrated low levels of parent-child agreement (Grills & Ollendick, 2003; Jensen et al., 1999). Moreover, questionnaire data has also revealed moderate correlations between parent and child's ratings of internalizing symptoms, with some indication that parents' ratings are more highly related to symptom interference (Pereira et al., 2015), while child ratings may be more closely related to observed avoidance (Lebowitz, 2017). In addition, newer statistical approaches are revealing ever more about the parent-child agreement phenomenon by incorporating such techniques as polynomial regression (e.g., Castagna et al., 2019; Laird & de los Reyes, 2013).

Several explanatory factors have been proposed to contribute to parent-child agreement, including the child's age, social desirability, parent psychopathology, and parent accommodation of the child's anxiety; however, research in all of these areas is inconsistent and subsequently inconclusive (Silverman & Ollendick, 2005). Hamblin et al. (2016) have recently explored many proposed explanatory factors regarding parent-child agreement. As predicted, the ADIS-IV: C/P demonstrated poor parent-child agreement for all diagnoses. Interestingly, age and comorbidities only impacted agreement ratings for SocAD, with older children with fewer comorbidities demonstrating greater parent-child agreements. Family accommodation also significantly impacted parent-child agreement in various contexts for SocAD and SAD, while it did not significantly impact agreement for GAD and SPs. Overall findings differed from previous research suggesting that parents may be better reporters for specific symptoms compared to children and vice-versa, depending on other mechanistic factors. Further, findings instead illustrated that the greatest endorsement of symptoms typically came from the party who experienced the greatest burden resulting from them and observed the symptoms in the context they occur, thus providing research on *how* many of these long-discussed explanatory factors actually mitigate parent-child concordance (Hamblin et al., 2016).

This data provides clinicians with information on when and how to potentially differentially weight information from multiple reporters as well as remind clinicians that reporter discordance is not always a reason for concern. Discordance between reporters on a specific symptom or disorder does not necessarily mean that the disorder is not present and knowledge on disproportionate reporting depending on the reporter (Jensen et al., 1999), as well as how these disproportionate reports are impacted by the environment and perceived burden resulting from symptoms (Hamblin et al., 2016), aids the clinician in increasing the validity of their diagnoses and furthers the argument for utilizing multi-reporter assessment strategies.

Summary

The prevalence of anxiety disorders in children and adolescents is quite high. Merikangas et al. (2010) reports that about one-third of youth will meet *DSM-5* criteria for at least one anxiety disorder by the age of 18. If left untreated, clinically significant anxiety can persist for years, even into adulthood, causing considerable impairment. The *DSM-5* identifies seven specific anxiety disorders, that have

been previously described, whose overlapping and defining symptoms must be distinguished. Appropriate treatment of youth anxiety is contingent on proper assessment and clinician knowledge and skill. Evidence-based assessment measures increase the accuracy of diagnosis, thus paving the way for the establishment of an efficacious treatment plan. In order to integrate and fully evaluate the many components of emotional functioning, symptom presentation, and environmental factors that comprise anxiety disorders, Silverman and Ollendick (2005) suggest that the best assessment approach is the use of a multi-method, multi-informant process.

There are a number of efficacious evidence-based assessment measures that may be used in the multi-method, multi-informant approach to anxiety assessment in youth. Commonly used assessment measures have been described and empirically reviewed. In alignment with the multi-method, multi-informant approach, it is recommended that a comprehensive assessment begin with an unstructured interview, ideally followed by a combination of diagnostic interviews (in part or whole), questionnaires, and physiologic and observational methods that include data gathering from both the youth and parents/caregiver. In order for clinicians to consistently practice making detailed, accurate diagnoses, they should begin each assessment by weighing all possibilities and then continuing to update these possibilities and hypotheses throughout to prevent resting on confirmation biases (Suhr, 2015). Information on family history, community base rates, and comorbidities regarding any one specific disorder are also helpful at forming and tailoring hypotheses to fit each client. The assessment of anxiety disorders among ASD/ID youth, a very common comorbidity, deserves even more specialized consideration. The multi-method, multi-informant approach is recommended for ASD/ID youth but must be more reliant on the parent report due to communication limitations characteristic of this population. Additionally, other considerations will be needed since few measures have been developed specifically for youth with developmental disabilities. It is incumbent on the assessing clinician to have a clear understanding of the symptom presentations of ASD/ID, comorbidities and presentation of anxiety, and to differentiate between them using various assessment measures.

Properly assessing for comorbidities and making differential diagnosis is equally important in neurotypical populations. Understanding how many disorders may consist of similar underlying constructs that can lead to similar symptom presentations can aid the clinician in understanding multiple potential explanations for any one endorsement. The clinician must skillfully use the assessment measures to disentangle the information gathered in order to garner an accurate, comprehensive understanding of the youth's identified problem. An important component of the assessment process is the case conceptualization, which integrates the aggregate of information gathered to determine if/which *DSM-5* criteria are met. Viewing information from multiple reporters through the lens of the time and environment these symptoms are presented in, as well as who may be most affected by them, may influence each reporter's rating and may help the clinician make sense of discordant information for the decision-making processes. Although the multi-informant approach lends itself to discrepant information, this is not always a cause for concern. Understanding the origin of these varying results can increase understanding and accuracy of the diagnosis.

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