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## How to Differentiate ADHD from PTSD in Children: Clinicians' Perspectives

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*St. Catherine University*

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How to Differentiate ADHD from PTSD in Children:  
Clinicians' Perspectives

by

Rebecca A. Jabour, B.A.

MSW Clinical Research Paper

Presented to the Faculty of the  
School of Social Work  
St. Catherine University and the University of St. Thomas  
St. Paul, Minnesota  
in Partial fulfillment of the Requirements for the Degree of  
Master of Social Work

Committee Members

Colin F. Hollidge, MSW, Ph.D., LICSW (Chair)

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The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

### **Abstract**

When children experience trauma, their ability to recognize, process, and share their emotions is unlike that of an adult, due to their lack of language skills. Typically, evidence of the trauma is then displayed through behavior, which happens to parallel similar symptoms of ADHD (Attention Deficit Hyperactivity Disorder). This similarity becomes a problem when children begin school, where the tendency among adults is to focus solely on behavior. This study was intended to look at the relationship between ADHD and PTSD (Post-Traumatic Stress Disorder) among children and how mental health professionals differentiate between the two diagnoses. Using a qualitative design, five children's mental health professionals were interviewed. The findings from this study were consistent with current research, concluding the existence of significant symptom overlap between ADHD and PTSD among children. Misdiagnosis can result in the prescription of inappropriate medication and therapeutic interventions. Unlike current research, this study suggests that the best way to differentiate between ADHD and PTSD among children is by attaining the social history of a child. Additionally, the data from this study suggested the need for further education of parents, schools, and community agencies on trauma-informed care. This approach is important in order to prevent misdiagnosis and undiagnosed disorders among children, create more of an empathetic approach to children with potential trauma histories, and enhance society's understanding of trauma and its impact.

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## **Introduction**

Attention Deficit Hyperactivity Disorder (ADHD) and Post-Traumatic Stress Disorder (PTSD) are diagnoses that mental health professionals come into contact with regularly. The causes of PTSD are well known, while causes of ADHD are unclear. Both disorders are complex and present diagnostic challenges to clinicians, and both have significant comorbidity with other disorders. Yet very little research has focused on the correlation between ADHD and PTSD (Cuffe, McCullough, & Pumariega, 1994).

ADHD (Attention Deficit Hyperactivity Disorder) is the most commonly diagnosed childhood psychiatric disorder. In the United States alone, an estimated 6.4 million children ages 4-17 have a diagnosis of ADHD, a 40% increase from a decade ago (Center for Disease Control and Prevention, 2014). Children with ADHD exhibit a variety of problems, including difficulty maintaining attention, hyperactivity, and impulsive behavior. These behaviors can have a significant impact. Children with ADHD may struggle with low self-esteem, troubled relationships with their peers and with adults, and poor academic performance (Mayo Clinic, 2013). If ADHD goes undiagnosed or untreated, the same struggles a person experienced in childhood will most likely follow them into adulthood. According to the Center for Disease Control and Prevention, adults with ADHD have problems with interpersonal relationships, have difficulty with employment, and have a higher rate of comorbid conditions, all of which have economic consequences for society (2014).

It is difficult to say what the prevalence of PTSD is among children because trauma can be experienced without the development of PTSD. However, there are many childhood traumatic events that can cause PTSD. According to the U.S. Department of

Veteran Affairs, Child Protective Services receives reports on abuse or neglect of 5.5 million children annually in the United States. Of these reports, there are different types of abuse including: 65% neglect, 18% physical abuse, 10% sexual abuse, and 7% psychological abuse. Aside from abuse, other traumatic events can include natural disasters, car crashes, war, and violence (2014). Factors that increase the likelihood of developing PTSD include the duration of the trauma, severity of the traumatic event(s), gender, age, and social support (Department of Veteran Affairs, 2014). Children can show signs of PTSD through difficulty sleeping, change in eating habits, clinginess, avoidance, emotional numbing, and reenactment of the traumatic event through repetitious play (Anxiety & Depression Association of America, 2014). The ongoing distress children with PTSD experience critically impacts their quality of life, which can result in serious functional and emotional damage. Without intervention, over time PTSD will physiologically lead to impairments in the limbic region of the brain, impaired cardiovascular regulation, poor impulse control, and many more physiological difficulties (Perry, 1999).

Traumatized children, particularly those who have been maltreated by their caregiver(s), are often dysregulated, restless, hyperactive, unable to concentrate, and struggle with relationships (Music, 2014). Similarly, children with ADHD also appear restless, hyperactive, unable to concentrate, and can struggle with relationships.

Research is needed to examine the correlation between ADHD and PTSD in children, and how mental health professionals can better differentiate between the two to prevent further psychological problems. Social workers need to be concerned about this issue in order to properly diagnose and intervene, as well as educate other adults who influence

diagnosing and interventions for children. Hence, it is crucial for social workers to have the most up to date and accurate knowledge about ADHD and PTSD in children. The research for this paper aimed to identify how children's mental health professionals differentiate ADHD from PTSD in children, and why accurately diagnosing children is important.



## **Literature Review**

### **Definition of ADHD**

Attention Deficit Hyperactivity Disorder (ADHD) is a disorder that first becomes apparent in preschool or elementary school when children are expected to be in charge of their bodies and minds for many hours of the day (Mattox & Harder, 2007). ADHD is a lifelong disorder that has two types: inattentive-type (easily distracted, daydreaming) and hyperactive/impulsive-type (constantly in motion, difficulty being quiet). The two types can also be diagnosed as 'combined-type', meaning a person has symptoms of both inattention and hyperactivity/impulsivity. According to the Diagnostic and Statistical Manual of Mental Disorders (5<sup>th</sup> ed.; DSM-V; American Psychiatric Association, 2013), "ADHD is characterized by a pattern of inattention and/or hyperactivity-impulsivity that interferes with development, has symptoms presenting in two or more settings (e.g. at home, school) and negatively impacts directly on social, academic or occupational functioning". The DSM-V (2013) also states that children have to have a minimum of six symptoms from either (or both) the inattention group of criteria and the hyperactivity and impulsivity criteria, all of which have to be present before age 12.

According to the National Institute of Mental Health, inattention, hyperactivity, and impulsivity are the main behaviors of ADHD (2014). Children with symptoms of hyperactivity and impulsivity may "fidget or squirm in their seats" or struggle to wait for things they want. Children with symptoms of inattention may have a hard time focusing on only one thing or struggle to follow instructions (National Institute of Mental Health, 2014). Although these behaviors are common among all children, those with ADHD present such behaviors more often and with more severity. Different symptoms may

appear in different settings, depending on the level of self-control that is required.

However, it is more likely that impulsivity and hyperactivity will be noticed more quickly than children who have the inattentive-type (Mattox & Harder, 2007).

### **Social-Emotional Impact of ADHD**

School is an extremely important time for children to master their ability to socialize (Keane & Calkins, 2004). Consequently, ADHD makes learning and socializing extremely challenging for children who struggle most often with inattentiveness, impulsiveness, forgetfulness, restlessness, and difficulty with organization (Stroh, Frenkenberger, Cornell-Swanson, Wood, & Pahl, 2008). In a systematic review, Mattox and Harder looked at the research on ADHD and diverse populations and found that children with ADHD are at a higher risk for interpersonal problems, including peer rejection, parent-child conflict, and educational functioning (learning disabilities, low graduation rates, and low grades) (2007). Mattox and Harder's research also revealed that in the United States, a classroom of 25-30 children will likely have at least one child with a diagnosis of ADHD (2007). ADHD can strongly impact every aspect of daily social, emotional, and academic functioning for a child. Because ADHD is often first recognizable in school, as Mattox and Harder explained, teachers are typically the first to notify parents of the problem behaviors of the child. The article contained good information on the experience of a child with ADHD in school, but lacked critical analysis around the dilemma of early diagnosing and interventions.

A qualitative study conducted by Neophytou and Webber (2005) explored the effects of ADHD on school-aged boys and their families. Family members (parents, step-parents, siblings, aunts/uncles, and grandparents) were interviewed five times, every

three months, and the boys' teachers were interviewed twice. The authors used convenience sampling from a major hospital to select three families with sons (age 9) with an ADHD diagnosis. Thematic analysis of the data concluded themes that centered around parental stress, societal expectations, parental confidence, and side effects of medication.

Similar to the study conducted by Mattox and Harder (2007), this study found that students with ADHD have a difficult time in school because they are constantly being reprimanded and lack friends in comparison to their peers who do not have ADHD. Most teachers in the study reported the child's behaviors, academic struggles, and lack of peer relationships to the parents, although the rate of referral depended on how well the teachers could control the behavior. The study revealed that the teachers' reports to parents often put the family under stress because "some of the parents felt blamed by the professionals for their child's difficulties, resulting in emotional stress" (Neophytou & Webber, 2005, p. 315). Additionally, children in the study self-reported that they would have rather been seen as naughty than labeled with an ADHD diagnosis, since it set them apart from their peers. This study contained important information about the social-emotional impact of ADHD on children and families, but failed to include a diverse sample. The study was only conducted with three families, which limited the generalizability of the results.

### **Causes of ADHD**

According to the National Institute of Mental Health, one of the biggest contributors of ADHD is genetics (2014). Traditionally, ADHD was thought to be a problem of inhibition, rather than a biological or environmental issue (Neophytou &

Webber, 2005). However, more recent studies suggest the opposite: social factors, including the environment in which a child is raised, can attribute to the rise in ADHD diagnoses. For example, several studies have found an association between chronic exposure to stress and its negative impact on regulatory parts of the brain, and exposure to ongoing trauma, causing a higher risk for biochemical changes in the hypothalamus (Goldsmith & Davidson, 2004; Schore, 1999). ADHD is also more common in children “whose mothers smoked during pregnancy, exposed to large amounts of lead, and in those who had a lack of oxygen during the neonatal period” (Mattox & Harder, 2007, p. 199). Additionally, parental characteristics, including “anger, emotional dysregulation, hostility, and misattunement to child cues,” can affect the developing brain of a child (Howe, 2010, p. 268).

### **Childhood PTSD Defined**

The Department of Veteran Affairs defines Post-Traumatic Stress Disorder (PTSD) based on the DSM-5 as:

*A history of exposure to a traumatic event that meets specific stipulations and symptoms from each of four symptom clusters: intrusion, avoidance, negative alterations in cognitions and mood, and alterations in arousal and reactivity. The sixth criterion concerns duration of symptoms; the seventh assesses functioning, and the eighth criterion clarifies symptoms as not attributed to a substance or co-occurring medical condition (2014).*

Typically, children who are diagnosed with PTSD are those who have experienced recurrent, severe trauma, called type II trauma or complex PTSD. Type II traumas can change a child's brain development and coping mechanisms because these traumas

happen during the most vulnerable point in human development (Briere & Scott, 2013). Defenses can include “denial, repression, dissociation, self-anesthesia, self-hypnosis, identification with the aggressor, and aggression towards the self, resulting in profound character changes in a child” (Terr, 1991, p. 329). Type II PTSD disorders can commonly be misdiagnosed in childhood as conduct disorders, attention deficit disorders, depression, or dissociative disorders due to the overlapping of symptoms (Terr, 1991; Howe, 2010). Abuse is the leading cause of childhood trauma, and can include physical, sexual, and psychological abuse as well as neglect.

Symptoms of trauma vary but can include: “thought suppression, sleep problems, exaggerated startle responses, developmental regressions, fears of the mundane, deliberate avoidances, panic, irritability, and hypervigilance” (Terr, 1991, p. 324). Traumatized children also tend to present disorganized characteristics, which occur to due fast shifts in their feelings when interacting with others, also known as relational dilemmas (Prior, 1996). Children become symptomatic most often when the stressor becomes too overwhelming, or when the attachment relationship between child and caregiver is unable to regulate the child’s response to the stressor (Lieberman, Chu, Van Horn, & Harris, 2011). Diagnosing children with PTSD is challenging due to the rapid developmental changes throughout childhood, lack of verbal skills, and limitations of parents and caregivers as accurate observers and reporters (Lieberman et al., 2011). Current research relies on caregiver reports of children’s PTSD symptoms, which can be biased, subjective, and insufficiently detailed (Lieberman et al, 2011).

**Neurocognitive changes.** Lipschitz, Morgan, and Southwick (2002) suggested that structures of the brain change when maltreatment occurs in children, particularly in

the hippocampus, amygdala, prefrontal cortex, and corpus callosum. For example, research conducted by Perry found that “fifty-three percent of 30 abused children (3 months to 17 years) had MRI scans that showed enlarged ventricles that were out of proportion to their developmental milestones and nutritional status” (1999, p. 154).

PTSD also causes a heightened responsiveness of the sympathetic nervous system (SNS), which is one of the body’s fight-or-flight responses. When the SNS is constantly heightened, a person with PTSD will have increased blood flow, dilated pupils, and increased glucose stores for fuel (Lipschitz et al., 2002). This persistent alarm reaction will physiologically lead to a dysregulated brain stem, impaired cardiovascular regulation, and poor impulse control (Perry, 1999).

**Demographics.** According to the U.S. Department of Health and Human Services (2012), the first 5 years of life have the highest rates of child maltreatment, with the highest maltreatment death rate between birth and 12 months of age. Additionally, the majority of child maltreatment reports are made for three races or ethnicities: White (44%), Hispanic (21.8%), and African-American (21%). Poor and minority children are more likely to witness or experience violence at home, as well as more exposure to physical abuse and sexual abuse throughout their lifetime (Turner, Finkelhor, & Ormrod, 2006).

**Attachment.** Children who grow up in chaotic environments in which abuse or neglect is present are more susceptible to a disorganized attachment classification. According to Zilberstein & Messer (2007), “in older children, disorganized attachment can be recognized by unstructured expression of inner distress and by the child’s inability to regulate that distress in attachment and other relationships” (p. 87). When children

have an overwhelming experience, they look to the parent or caregiver to help them contain their feelings, regulate their affect, alleviate pain, and put their experience into language (C. Hollidge, personal communication, June 11, 2014). This relationship between the child and caregiver acts as the basis for healthy social and relational interactions for children. Therefore, if the child's primary object of safety (i.e. the attachment figure) is the source of fear, it is extremely detrimental to the child who relies on the caregiver for self-regulation (Hesse & Main, 2000). For example, among children exposed to a severe trauma before 48 months of age, PTSD was diagnosed more often along with symptoms of aggression, fear, and hyper-arousal when they witnessed a threat to their mother as compared to children exposed to other traumas (Scheeringa, Zeanah, Drell, & Larrieu, 1995).

Additionally, dissociation is another main indicator of disorganized attachment among children. According to Siegel (1999), "without the option to fight or flee, stuck between approach and avoidance, the infant can only 'freeze' into a trance-like stillness, which may be the beginnings of a tendency towards clinical dissociation – the phenomena in which consciousness, states of mind, and information processing become fragmented" (p. 109). Dissociation is typically used as a defense to escape from feelings or an experience that is too overwhelming to comprehend, and is especially common among children who experience sexual abuse.

### **Social-Emotional Impact of PTSD**

In a study conducted by Tidefors and Strand (2012), 11 boys (14-19 years old) who had committed sexual offenses were interviewed. Of the 11 boys, 9 of them had separated parents, 3 had parents with substance abuse issues, four had lived in foster

homes, five were victims of sexual abuse, nine were victims of physical abuse, and eight were victims of emotional abuse or neglect. All of the boys had experienced childhood trauma and all of them had diagnoses of ADHD as well. In school, students reported lacking the proper “survival skills” and got bullied. Those who lived in foster homes reported that their lives felt unpredictable with the constant changes in homes, schools, and friends. The boys also reported difficulties in school around being unable to concentrate, feeling restless and impulsive, engaging in fights, and struggling to express their emotion. The main finding of the study revealed a strong correlation between types of childhood trauma symptoms as being similar to symptoms of ADHD. The boys reported that their uncontrollable impulsivity was the main force behind their sexual offense, which led them to juvenile detention. This study serves as one example of how children with PTSD suffer socially and emotionally as a result of their behaviors.

In a systemic review of the literature on trauma and maladaptive social-emotional and behavioral outcomes, Lieberman et al. (2011) found that preschoolers who were exposed to domestic violence showed “increased negative affect, more peer aggression, less appropriate responses to situational challenges, and more ambivalent relationships with their caregivers than their peers” (p. 402). The authors also found that children who witnessed domestic violence had lower IQ scores, scored lower on memory tasks, and displayed cognitive deficits. The findings suggest that children’s social, emotional, and cognitive capabilities are greatly distorted when trauma has been experienced (2011).

### **Correlation between ADHD and PTSD**

A systemic review conducted by Lipschitz et al. (2002) looked at correlations between traumatized youth with a diagnosis of PTSD and youth with disruptive behavior



disorders, including ADHD, ODD (Oppositional Defiant Disorder), and CD (Conduct Disorder). Because traumatized children present symptoms that resemble behavioral disorders (e.g. aggression, impulsivity, and hyperactivity), ADHD is a common diagnosis in youth with a trauma history. The review found a strong correlation in the research literature in overlapping symptoms between PTSD and disruptive behavior disorders (Lipschitz et al., 2002). For ADHD in particular, the review showed that poor attention and concentration are both hyper arousal criteria of PTSD, and part of the diagnostic criteria for ADHD. The review also found that in juvenile justice centers, a primary diagnosis is conduct disorder, with or without ADHD, rather than a diagnosis of PTSD. This review suggests that there is a clear lack of screening for trauma histories that is leading to inaccurate diagnoses assigned to youth. Problems with attention and hyperactivity may be secondary to the trauma or reflect ADHD, in which case these children require a different clinical approach than non-traumatized children with ADHD (Cuffe et al., 1994).

In a study conducted by Fuller-Thomson, Mehta, and Valeo (2014), 13,054 adults (18+) were surveyed in a secondary data analysis using the Canadian Community Health Survey to assess whether a correlation exists between childhood physical abuse and ADHD. Using a logistical regression analysis, the results showed that there was a seven times higher likelihood of ADHD among those who had been abused based on age, race, gender, and three types of adverse childhood experiences (parental divorce, parental addiction, and long-term parental unemployment) compared to those who were not abused. The study also found that ADHD is more prevalent among adversity: high levels of poverty, parental discord, divorce, and addiction. Additionally, the authors discussed

the potential causality regarding behaviors associated with ADHD that make children more vulnerable to abuse by caregivers as a means to deal with difficult temperaments, aggression, and misbehavior (2014).

### **Interventions**

**ADHD.** Although there is no cure for ADHD, treatment can help relieve symptoms and enable people to lead more productive lives. Only a few types of interventions exist for the treatment of ADHD in children: medication, behavioral interventions, or the combination of both (National Institute of Mental Health, 2014). One of the biggest decisions a parent of a child with ADHD has to make is whether or not to medicate their child. A study conducted by Stroh et al. (2008) looked at 146 parents' knowledge, attitudes, and informational sources regarding ADHD, including treatment with stimulant medication and behavioral interventions for their elementary age children. The study revealed that parents were overwhelmingly in favor of behavioral interventions and less in favor of stimulant medications due to "psycho-stimulant medications being overprescribed, possible negative side effects, and a need to teach children to manage behavior instead of artificially managing symptoms" (p. 386). However, stimulant medications are steadily increasing. By the age of 17, nearly one in five American boys and one in ten girls has been told they have ADHD, and 70% are prescribed stimulant medication (Hinshaw & Scheffler, 2014).

The American Academy of Pediatrics now says that the diagnosis of ADHD should begin at age 4, before problems worsen, and Adderall and other stimulant medications are approved for the treatment of ADHD at age 3 (Hinshaw & Scheffler, 2014). Hinshaw & Scheffler raise the issue that "too many kids are identified and treated

after an initial pediatric visit of 20 minutes or less. An accurate diagnosis requires reports of impairment from home and school, and a thorough history of the child to rule out abuse or unrelated disorders" (2014). While early intervention is typically a good thing in most cases, according to Hinshaw & Scheffler, millions of children have been labeled ADHD when they do not truly have it (2014).

**PTSD.** While some children can naturally experience a decline in PTSD symptoms over time, others will require interventions. Treatment for children with PTSD is complex and differs for each child. Some treatments (Cognitive Behavioral Therapy (CBT) and Eye Movement Desensitization and Reprocessing (EMDR)) are meant to focus on PTSD symptom reduction, while other treatments (hypnosis, art therapy, psychodynamic therapy) look to enhance the therapeutic process instead of specifically targeting PTSD symptoms (Foa, Keane, Friedman, & Cohen, 2008). Overall, typically the goal of treatment is to reduce symptom frequency, intensity, and severity of PTSD (Foa et al., 2008). Medication is another form of treatment, which can accompany therapy for children but is not suggested on its own.

### **Implications**

Interventions for ADHD and PTSD in children are distinct, and misdiagnosis will result in the use of incorrect treatment modalities by clinicians. A systemic review conducted by Weinstein, Staffelbach, & Biaggio discussed the implications for children who are misdiagnosed with ADHD instead of PTSD. The literature indicated that if a child with PTSD takes stimulant medication for ADHD, side effects of the medication (difficulty falling asleep, lack of appetite, irritability, headaches, nausea) may exacerbate symptoms of PTSD. Another negative consequence of ADHD misdiagnosis among

children with PTSD is the failure to treat the trauma symptoms. If behavioral problems are targeted instead of recognizing them as symptoms of PTSD, the child's self-esteem may suffer (2000).

Very little research has been dedicated to the correlation between ADHD and PTSD and the consequences of misdiagnosis. This study is designed to explore the topic in order to gain greater insight regarding differentiation between ADHD and PTSD in children.

### **Conceptual Framework**

This research paper is based on trauma theory, which emphasizes that recovery from trauma must take place in the context of relationships (Herman, 1992). Trauma theory enables mental health professionals to approach trauma survivors with the appropriate treatment strategy. Trauma can happen from a single event (simple trauma) or it can occur from a series of experiences (complex trauma). The way in which clinicians apply treatment will vary depending on the severity and duration of the trauma (i.e. simple vs. complex) (Herman, 1992). According to Abrams & Shapiro (2014), “complex trauma, most often of an interpersonal nature, results from child abuse and neglect, from the stresses of growing up in poverty and in chronically unsafe environments, and from repeated exposures to trauma into adulthood” (p. 410). When complex trauma begins in childhood, the ability to self-regulate suffers which can negatively influence a child’s ability to create and sustain relationships.

Trauma theory proposes that the relationship between the therapist and the child can be the major variable in repairing the negative effects of trauma. Through a therapeutic alliance, the child can experience neurobiological changes that will help him or her re-learn how to self-regulate, as well as help them restore positive relationships in their life (Abrams & Shapiro, 2014). When mental health professionals and other adults who work with children begin to apply trauma theory, their understanding of the child’s behavior will make more sense as signs of trauma become more evident.

### **Methodology**

The purpose of this study was to explore how children's mental health professionals differentiate ADHD from PTSD in children. An exploratory qualitative study was conducted to provide insight from mental health professionals who work with children regarding their experience on how to differentiate between ADHD and PTSD among children and why it is important. This research is meant to contribute to the area of children's mental health and the importance of accurately diagnosing children.

### **Sample**

A non-probability, purposive sample of 5 children's mental health professionals in the Twin Cities Metro area was obtained. Qualitative interviews were conducted with licensed professionals who are involved in the diagnosing and treatment of children with ADHD or PTSD diagnoses. This group sampling was selected from a website entitled *Psychology Today* based on their experience working with children who have either a diagnosis of ADHD or PTSD. Once the professionals were contacted from *Psychology Today*, snowball sampling was used.

Participant experience in this field ranged from 4 to 46 years, and the age of the children being worked with was between the ages of 4 and 12. There were three male and two female participants. Of these participants, two were Licensed Graduate Social Workers (LGSW), two were Licensed Independent Clinical Social Workers (LICSW), and one was a Licensed Psychologist (LP). Two participants were private practice-based therapists, one was a therapist in a community agency, one was an elementary school-based therapist, and one was an elementary school social worker.

### **Data Collection**

Participants were contacted by email once approval from the University of St. Thomas Institutional Review Board was obtained (See Appendix A). Participants contacted this researcher directly by email to express interest in participating. Prior to each interview, participants were given a consent form that was approved by the University of St. Thomas Institutional Review Board (IRB). The consent form provided participants with background information about the study, procedural information, risks and benefits, and a confirmation of confidentiality (See Appendix B). To obtain data for the topic, in-person and phone interviews were conducted and audio recorded on an iPhone. The interviews were approximately 45 minutes and took place in a location most convenient for the participant. After the interview, this researcher transcribed each recording.

### **Measurement**

The respondents were asked 11 questions on a semi-structured interview (see Appendix C). The general themes of the questions covered demographic information, how ADHD and PTSD are differentiated, and the participants' impression of the importance of an accurate diagnosis.

### **Protection of Human Subjects**

Before potential participants were contacted, approval of the research was obtained from the University of St. Thomas Institutional Review Board. To ensure confidentiality, participant names never appear in the data, nor does the name of the agency from which participants come from. Only this researcher had access to the data and records. The participants were given one copy of the consent form and signed a

second copy to confirm he or she consented to the interview and to be a participant in the study. To maintain confidentiality, the participants were notified that the transcript and recording of the conversation will be destroyed by May 18, 2015. The signed consent forms will be retained for at least three years following May 18, 2015. The nature of this study should not present any risks to the participants. Potential participants were informed that whether they decide to participate does not influence their relationship with St. Catherine University or the University of St. Thomas.

### **Data Analysis**

To analyze the data following the transcriptions, the researcher used qualitative content analysis. Content analysis can be defined as “a method of transforming symbolic content of a document, such as words or other images, from a qualitative unsystemic form into a quantitative systemic form” (Monette, Sullivan, Dejong, & Hilton, 2014, p. 204). To understand the data, this researcher used grounded theory to identify themes within the text. With no prior theory, themes, or codes in mind, grounded theory was used by going through the data and developing new themes based on recurring words or phrases this researcher finds. To find themes, open coding was used. Open coding is when the researcher initially goes through the data to produce concepts that fit the data well, which can then be developed into categories or themes (Monette et al., 2014).



## **Findings**

The research for this paper aimed to identify how children's mental health professionals differentiate ADHD from PTSD in children, and why accurately diagnosing children is important. Five children's mental health professionals responded and participated in qualitative interviews. The following themes were derived from participant interviews: symptom overlap, strategies for differentiating, misdiagnosed and undiagnosed ADHD and PTSD, and future implications.

### **Themes**

**Symptom overlap.** This theme was identified as a result of this researcher asking participants to describe what ADHD and PTSD symptoms look like in the children with whom they work. All five participants (100%) commented on the symptom overlap between ADHD and PTSD in children. All participants mentioned that children who have diagnoses of ADHD can present with not only attentional issues, but also with impulse control problems and hyperactivity, and said that children with PTSD can present with attentional problems and impulse control problems too. Additionally, two participants (40%) went on to describe further similarity between hypervigilance (PTSD) and hyperactivity (ADHD). Particularly in school settings, teachers and school officials may easily identify these issues as one in the same. Despite these similarities, all five of the participants mentioned that although there is symptom overlap, the children with PTSD have symptoms that do not exist with ADHD. For example, one participant described the PTSD symptoms that do not occur with ADHD as, "Nightmares, reenactments, dynamics, or behaviors that are traumatic. Shrinking from social

engagement or on the converse, indiscriminate social engagements". Another participant described the difference based on his experience as:

*I see more of the overlap with the hyperactivity part - and if you look at it, the ADHD symptoms are hyperactive and PTSD are hyper arousal - so the same thing is the hyper. And what you have to weed out is where that hyper is coming from - is it more genetic wiring or is it from witnessing some stuff.*

This participant identified the overlap of the "hyper" aspect of both diagnoses, as well as the difference between ADHD as being genetic, versus PTSD as being witness to trauma.

Three participants (60%) stated that they have found other diagnoses that overlap with ADHD and PTSD. For example, one participant said that he sees ADHD as one contributor to Oppositional Defiant Disorder:

*If you have ADHD you evoke a lot of negative input, before you are diagnosed and put on meds or helped. And that generates a sense of being overwhelmed, which then generates a sense of failure and when you generate a sense of failure you dig your heels in and become oppositional... And some kids become depressed and feel failed.*

Additionally, this participant as well as two other participants said they see a range of anxiety and depression, which they either want to differentiate from ADHD or view them as comorbid with either PTSD or ADHD.

**Strategies for differentiating.** Participants identified numerous strategies used to differentiate ADHD and PTSD in children. All participants readily stated that the most important way to discern whether a child is presenting with ADHD or PTSD is through a social history. Four participants (80%) described gathering a social history from

caregivers, or from records, prior treatment, or evaluations. Another participant said he gets a social history through a psychosocial assessment. This participant also described what he looks for from his assessment as “the behaviors that define mental health and mental illness. I’m looking for trauma, I’m looking for supportive networks in the family, and unless you do an adequate social history, you don’t have that”. Another participant stated that he “explores more of the kid’s home life, the system, have they been moving around a lot, what’s the relationship like between sisters, and mom”. Four participants (80%) elaborated on the challenge of getting a social history from the caregiver because first you have to build a relationship with them within one or two sessions. The better the relationship, the more extensive and adequate the social history will be, especially if this is the first time a child is receiving treatment. For example, one participant discussed an example of a mother she worked with:

*She came in for 2 sessions, and she got a little bit freaked out and didn’t come back. And now that child is being assessed for special education services and I’m not working with him. And I feel like - oh, if I had had the chance to work with him, he might not be going through this special ed process. Because I think for him, parents, and teachers, might be looking at him like an ADHD kid, and I would’ve started looking at him as a kid with emotional difficulties.*

This participant had known about prior traumatic incidents in this child’s life, suspecting potential PTSD. She shared this example to show how difficult it can be to get caregivers “on board” with therapy because it can be a scary process, and oftentimes they blame themselves and feel ashamed they were unable to provide what their child needed to be successful.

Another participant expanded on the progression of treating ADHD and PTSD in children:

*It's a time-limited thing too, where if it's a PTSD kid, hopefully after treatment is done they don't look the same way. Whereas if we have an ADHD kid and they're not being medicated, they're going to continue to be that way until who knows when. Until they're more mature. They still have it but they're dealing with it differently.... so that's the difference to me - is this a lifelong thing or is it this time limited thing.*

This participant is one who believes that the best form of treating ADHD is through medication, and without medication the child will develop ways to adapt as they transition into adolescence. Whereas with PTSD, therapy would produce a new outcome for the child. Participants' input on proper treatment for ADHD and PTSD in children will be discussed in more detail in the next theme section.

Two participants (40%) also mentioned the pressure to diagnose children quickly, which makes differentiating or ruling out between similar diagnoses difficult. For example, one participant mentioned that she has to diagnose a child within the first two or three sessions in order for the treatment to be covered by an insurance company. Participants said that particularly for PTSD, it takes time to really be sure of the diagnosis. Children can experience trauma and not have PTSD, so to assign a diagnosis of PTSD has a big impact for such a young age group.

**Misdiagnosed and undiagnosed ADHD and PTSD.** Four participants (80%) stated they have seen children either misdiagnosed with ADHD instead of PTSD or have received referrals for potential ADHD when it is in fact PTSD. All five of the

participants said they have seen children undiagnosed with these disorders. One participant, who is a school social worker, said:

*We have a lot of kids that just witness domestic abuse and that's like a huge total – you know those kids I would say probably have some form of PTSD, it's often not diagnosed. It's not to the extent that they're really aggressive or acting out but they are certainly impulsive and more hyper because they witnessed something a long time ago... so it's kind of unresolved stuff.*

Three of the participants (60%) discussed the issue of children's doctors being able to diagnose and prescribe stimulant medication for ADHD. For example, one participant stated:

*A kid gets - without me having a full diagnosis - a kid went to the doctor because his mom thought he had ADHD, the doctor gave him ADHD medications within an hour and about two or three days later the teachers are like, 'oh my god', his behaviors are just really exploding. Because with PTSD it's often treated with antidepressants or some sort of mood stabilizer. And that's not what this kid was getting. He literally got a stimulant!*

Two participants (40%) shared similar experiences where they have seen children with undiagnosed PTSD given stimulants for ADHD and they have either not worked or had adverse effects. The three participants who discussed this issue felt that a doctor's ability to diagnose ADHD by only looking at a checklist for symptoms may be a contributor to the misdiagnosis of children as a result of having very little background information on the child.

All of the participants discussed stimulant medications for children with ADHD. Three participants (60%) were supportive of their value as a treatment option. Two other participants (40%) expressed concern over giving stimulant medications to children and what they can do to a child's developing brain. These two participants were not directly opposed to stimulants for children, however, they did state that "a child's environment should meet them where they are at" and "children are a product of their environment". Three participants (60%) mentioned the social-emotional impact of having ADHD and not being treated for it, whether it is through medication or therapeutic intervention. One participant in favor of stimulant medication for ADHD described the social-emotional impact of not being put on medication as:

*Do you make this kid go through life being the class clown and disliked by everybody, and failing in school and unable to perform to his potential, unable to keep up with the other kids, ending up in special ed classes - because you don't want to put him on a stimulant medication?*

Compared to another participant that is more opposed to giving children stimulant medication:

*It (ADHD) is over diagnosed. To me kids are scientists, they're meant to explore, they're meant to ask what is this, and play and do these things. And for me, and this is a personal thing, but I feel like adults get in the way of that and set barriers to that and it becomes this rigid sort of linear way of doing things. 'Sit still, eat this, don't move' .... I have hard time giving a six-year-old pills... what are we doing to his brain? And I get through it by knowing, 'okay he's in therapy - so it's not just medication'.*

Although this participant feels personally opposed to medicating children, he acknowledges that stimulant medication is the most common way to treat ADHD and it is up to the family to decide.

**Future implications.** This theme emerged from the research as a result of an interview question, which asked participants whether differentiating between ADHD and PTSD in children has become a problem in the field of children's mental health. In response to this question, one participant (school social worker) stated:

*I guess in the actual school itself, PTSD isn't actually discussed that much aside from when I bring it up. But you can have a conversation with teachers and admin about general stuff that went on in the kid's life so you're kind of discussing – 'oh so that's why they're behaving that way'. But we don't necessarily use clinical terms and it depends on where they're evaluated and if they're evaluated.... Different places conceptualize kids in different ways.*

Two participants (40%) mentioned the issue of PTSD not being discussed in schools.

Three participants (60%) also mentioned one of the biggest issues for children in schools are the adults who simply focus on the behavior. The three participants (60%) said that by only looking at behavior, the tendency is to assume ADHD and nothing else. One participant re-enforces this when he stated:

*Teachers aren't clinicians, they aren't trained to look for moods and assess. It's just simply 'he's not listening, he's just doing what he wants, or he was on his phone the whole time in class'. You're solely looking at the behavior. But is he avoiding because he can't handle reality - and that's often the case.*

The same three participants (60%) put a big emphasis on the need for educating teachers, school staff, parents, and any agencies that work with children on trauma-informed care as a way of looking beyond behavior. They believe this approach would help adults who are not trained in children's mental health begin to think in a trauma framework that allows them to approach a child's behavior with more empathy and understanding.

Another participant discussed his opinion about children's inability to directly express their feelings, which is then presented through their behavior:

*They can't sit there and tell you what's happened. Under developmental theory they don't have the ability to use their language skills. I get hung up on parents when they say, 'use your words, use your words' - I understand that, but at the same time, the kid might not be able to know what he's feeling and it comes out as anger. And teachers are like, 'he's got ADHD'.*

This participant as well as another participant spoke to this issue of elementary age children being unable to express their emotions, especially among those with traumatic histories. Therefore, their inability to express feelings is demonstrated through challenging behaviors, particularly in school. Overall, four participants all stated the importance of figuring out what is causing the behavior before jumping to a diagnosis or treatment.

### **Discussion**

The purpose of this study was to explore children's mental health professionals' opinions on the relationship between ADHD and PTSD, and how they differentiate between the two. This research was also meant to contribute to existing research on diagnosing children and why an accurate diagnosis is important. The findings from this



study reveal several areas of overlap with previous literature on this topic. All four themes reported in this study support existing literature discussed in the literature review, including symptom overlap, strategies for differentiating, misdiagnosed and undiagnosed ADHD and PTSD, and future implications.

### **Symptom Overlap**

All five participants in this study were asked to describe what symptoms of ADHD and PTSD look like in children with whom they work. Participant descriptions of the symptoms for both diagnoses support existing literature mentioned in the literature review. However, it is important to note that participant descriptions of ADHD symptoms differed based on each participant's personal experience. For example, two participants only discussed the hyperactivity and impulsivity symptoms of ADHD, and not the inattention. These two participants may have only worked with children who have the hyperactive/impulsive-type of ADHD, and not the inattentive-type.

All five participants discussed symptom overlap between ADHD and PTSD, including symptoms of PTSD that do not exist with ADHD. The participants' discussion of symptom overlap supported Mattox & Harder's research (2007), which discussed that poor attention and concentration are both hyper arousal criteria of PTSD, and part of the diagnostic criteria for ADHD. Both participants and the literature also stated that ADHD is a common diagnosis in children with a trauma history.

Three participants discussed the need to rule out other disorders that overlap with ADHD and PTSD, including Oppositional Defiant Disorder, anxiety, and depression. In comparison, Lipschitz et al. (2002) looked at the correlation between traumatized youth with a diagnosis of PTSD and youth with disruptive behavior disorders, including

ADHD, ODD (Oppositional Defiant Disorder), and CD (Conduct Disorder). Unlike the three participants, the literature was suggesting that disruptive behavior disorders have taken the place of PTSD diagnoses among youth. In comparison, the participants stated that ODD, anxiety, and depression can present similarly to *either* ADHD or PTSD.

### **Strategies for Differentiating**

All five of the participants stated that getting the social history of a child is the best way to differentiate ADHD from PTSD. Through a social history, participants are able to assess for any instances of trauma that could result in a PTSD diagnosis. Due to the lack of research on this topic, the literature did not support, nor did it mention a strategy for differentiating between ADHD and PTSD. The literature did, however, mention the difficulty of relying on parent's reports of their child's PTSD symptoms, which can be biased, subjective, and insufficiently detailed (Lieberman et al, 2011). Similarly, four participants elaborated on the challenge of relying on the caregiver for a social history because if the caregiver does not have a good relationship or trust the clinician, the social history will be less accurate.

Two participants also discussed the difficulty of having to diagnose children quickly, due to insurance company requirements. They both explained that when assessing for a trauma history and a potential PTSD diagnosis, it can take much longer to identify in comparison to one like ADHD. The literature did not include information on having to diagnose children quickly, and how this can result in misdiagnosis.

### **Misdiagnosed and Undiagnosed ADHD and PTSD**

Four participants stated they have seen children either misdiagnosed with ADHD instead of PTSD or have received referrals for potential ADHD when it is in fact PTSD.

All five of the participants said they have seen children undiagnosed with these disorders. For example, three participants who have worked with children with both types of ADHD (inattentive and hyperactive/impulsive) supported Mattox & Harder's supposition (2007) regarding the difficulty of identifying the inattentive-type of ADHD in children because they do not present with hyperactive and impulsive behavior. Instead, a child with undiagnosed inattentive-type ADHD will be daydreaming, unable to focus, receiving constant redirection, and will not be considered for an ADHD evaluation by schools or caregivers until they fall behind in school.

Three participants discussed the issue of pediatricians being able to diagnose children with ADHD and give them stimulant medication, which supports Hinshaw and Scheffler (2014) who raised the same issue that "too many children are identified and treated for ADHD after an initial pediatric visit of 20 minutes or less". Three participants also discussed the negative effects of prescribing incorrect medication as a result of a misdiagnosis, specifically for kids with undiagnosed PTSD who have been given a stimulant for ADHD. Weinstein et al. (2000) reported similar findings that if a child with PTSD takes stimulant medication for ADHD, the side effects of the medication can exacerbate the PTSD symptoms.

The data and the literature reported similar findings with positive and negative side effects of stimulant medication for ADHD. Three participants were in support of treating children with ADHD with stimulant medication, while two participants expressed concern over stimulant medication for children. The same two participants felt that ADHD is over diagnosed, which aligns with Hinshaw and Scheffler (2014) who reported that while early intervention is typically a good thing, millions of children have

been labeled with ADHD when they do not truly have it. On the other hand, the American Academy of Pediatrics argues that the diagnosis of ADHD should begin at age 4, before problems worsen. They also argue that stimulant medication can be safely prescribed as early as age 3.

Although this researcher did not include questions related to medication for either ADHD or PTSD, there was a strong debate over the use of stimulant medication for children with ADHD among both the participants and the literature. This topic emerged from the data after participants were asked whether they have seen children who have been misdiagnosed with either disorder and how it has impacted them. Because ADHD is a more common misdiagnosis for PTSD, concern was expressed in the literature and the data over the incorrect medication being given, as well as inappropriate therapeutic approaches.

### **Future Implications**

All five participants discussed the issue of solely looking at behavior in schools, which becomes an issue when the wrong behavioral interventions are applied. Cuffe et al. (1994) supported this theme and stated that problems with attention and hyperactivity may be secondary to the trauma or reflect ADHD, in which case these children require a different clinical approach than non-traumatized children with ADHD. Weinstein et al. (2000) also support this theme stating that if behavioral problems are targeted instead of recognizing them as symptoms of PTSD, the child's self-esteem may suffer.

One aspect of this theme that emerged in the data that was not discussed in the literature was the need to educate schools, parents, and any agencies that center around children on trauma-informed care. Four participants mentioned that by educating on

trauma-informed care, there would be less focus on behavior and more of an emphasis on empathy and understanding.

### **Strengths and Limitations**

This researcher gained useful data on the topic of ADHD and PTSD among children's mental health professionals. This research has contributed to understanding the relationship between ADHD and PTSD in children, the symptoms of each diagnosis and how they present similarly, how to differentiate between the two diagnoses, why accurately diagnosing is important to children's mental health, and how children's mental health professionals can educate others on trauma-informed care. It is important to note that there was little to no previous literature that discussed strategies for differentiating ADHD from PTSD in children. This study, although small, will help contribute to this topic of research.

This research is not generalizable due to the small sample size. Because this research is meant to identify how children's mental health professionals differentiate between ADHD and PTSD, this researcher did not include any questions on comorbidity between the two. Therefore, the research has little information about the diagnoses existing together in children.

### **Implications for Social Workers**

According to Masiriri (2008), 60% to 70% of mental health treatment in the United States is provided by masters-level social workers. This means that the likelihood of clinical social workers encountering trauma and/or PTSD is very likely. Based on this study, this also means that the likelihood of having to differentiate ADHD from PTSD is high. Although not all social workers will work with children, accurately diagnosing

affects everyone in the mental health field, and in the community as a whole.

Interventions for ADHD and PTSD are distinct among children, and misdiagnosis will result in the use of incorrect treatment modalities by clinicians. As suggested by the participants in this study, social workers need to start educating parents, schools, and community agencies about trauma-informed care to a) prevent undiagnosed or misdiagnosed ADHD or PTSD, b) create more of an empathetic approach to children with potential trauma histories and c) to enhance society's understanding of trauma and its impact.

### **Implications for Policy**

More children's mental health professionals including school social workers, counselors, and therapists are needed in schools to help screen for and assess mental health problems among children. The sooner a potential disorder can be identified, the quicker a child will benefit from appropriate treatment and avoid long-term suffering. Therefore, additional funding is needed among schools to hire more children's mental health professionals.

### **Implications for Future Research**

Further research is needed in several areas of children's mental health based on the findings from this study. First, further research is needed to understand the lasting effects of undiagnosed or misdiagnosed ADHD and PTSD from childhood into adulthood, and how the implementation of appropriate interventions change the course of a child's life. Second, there is a clear lack of screening for trauma histories among children, leading to undiagnosed or misdiagnosed PTSD. Additional research is needed to better understand what a social history is, and its effectiveness as a screening tool to

identify potential trauma. Third, participants mentioned the pressure of having to diagnose children within one or two sessions, as a result of timelines enforced by insurance companies. Research could also be done on potential implications of misdiagnosis due to these time restraints. Lastly, further research should be conducted on the impact of stimulant medication on a child's brain and overall development, as this was a recurrent theme of disagreement in the literature as well as from participants.

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Appendix A

Recruitment Email

Dear Potential Participant,

My name is Rebecca Jabour and I am a Master's student at the University of St. Thomas/St. Catherine University School of Social Work in St. Paul. I am conducting research under the supervision of Dr. Colin Hollidge, a professor in the program. I am looking to interview licensed mental health professionals who currently work with children (ages 4 to 12) with diagnoses of ADHD or PTSD. My research will assess clinician's perspectives on the relationship between ADHD and PTSD and how clinicians can differentiate between the two.

I found your information on the website *Psychology Today*. To my knowledge, you are a licensed mental health professional who works with children who have histories of trauma or PTSD, or ADHD. I would like to speak with you about your perspective on ADHD and PTSD among children.

Interview information:

- 45 minute audio recorded interview
- Interview will be scheduled at a location and time convenient to participant
- Participation in this interview is voluntary and there are no known risks involved. After you provide consent, you can stop the interview process at any time and withdraw.
- All information you provide will be confidential and secure.

If you wish to participate in this study, please email me at [jabo0055@stthomas.edu](mailto:jabo0055@stthomas.edu) by February 20<sup>th</sup>, 2015. If you have questions or concerns, you can call me at 515-490-4732 or call my supervising chair, Dr. Colin Hollidge at 651-962-5818.

Thank you for your consideration,

Rebecca Jabour, B.A.  
Masters of Social Work Student  
University of St. Thomas/St. Catherine University

Appendix B

## CONSENT FORM

### UNIVERSITY OF ST. THOMAS

#### **Understanding the relationship between ADHD and PTSD in children**

I am conducting a study about the relationship between ADHD and PTSD in children and how children's mental health professionals can differentiate between the two. I invite you to participate in this research. You were selected as a possible participant because as a licensed mental health professional, you have experience working with children who have ADHD or PTSD diagnoses. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Rebecca Jabour, Dr. Colin Hollidge, and the Masters of Social Work program.

#### **Background Information:**

The purpose of this study is to look at the relationship between ADHD and PTSD in children and how children's mental health professionals can differentiate between the two. This study will also help provide insight as to why accurately diagnosing children is important, as well as what interventions and treatments are most beneficial.

#### **Procedures:**

If you agree to be in this study, I will ask you to do the following things: speak with me for no more than an 45 minutes on this topic while also being audiotaped during the interview.

#### **Risks and Benefits of Being in the Study:**

The study has no risks or benefits.

#### **Confidentiality:**

The records of this study will be kept confidential. In any sort of report I publish, I will not include information that will make it possible to identify you in any way. The types of records I will create include a transcript of our conversation and an audio tape recording, both of which will be kept on a password protected laptop. Your name will not be used at any point in this study. The transcript and audio tape recording will be destroyed in May of 2015. No one else will have access to my data.

#### **Voluntary Nature of the Study:**

Your participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your current or future relations with the agency you work for or St. Catherine University or the University of St. Thomas. If you decide to participate, you are free to withdraw

at any time. Should you decide to withdraw data collected about you, I will respect your decision and not include the data. You are also free to skip any questions I may ask.

**Contacts and Questions**

My name is Rebecca Jabour. You may ask any questions you have now. If you have questions later, you may contact me at 515-490-4732. You may contact my advisor, Colin Hollidge, at 651-962-5818. You may also contact the University of St. Thomas Institutional Review Board at 651-962-5341 with any questions or concerns.

**You will be given a copy of this form to keep for your records.**

**Statement of Consent:**

I have read the above information. My questions have been answered to my satisfaction. I consent to participate in the study. I am at least 18 years of age. *[If additional permissions are needed (e.g. audio or video recording, accessing private student or medical records), include these here.]*

\_\_\_\_\_

**Signature of Study Participant**

\_\_\_\_\_

**Date**

\_\_\_\_\_

**Print Name of Study Participant**

\_\_\_\_\_

**Signature of Parent or Guardian**

**(If applicable)**

\_\_\_\_\_

**Date**

\_\_\_\_\_

**Print Name of Parent or Guardian**

**(If Applicable)**

\_\_\_\_\_

**Signature of Researcher**

\_\_\_\_\_

**Date**



Appendix C

Interview Questions:

1. How many years have you worked with children diagnosed with ADHD or PTSD?
2. What is your theoretical orientation?
3. Based on your experience, how prevalent is ADHD or PTSD among children in this setting?
4. Please describe the symptoms children present with who are diagnosed with ADHD.
5. Please describe the symptoms children present with who are diagnosed with PTSD.
6. Do you experience any symptoms overlapping?
7. Tell me strategies you use to differentiate between ADHD and PTSD in children.
8. Have you seen children who have been misdiagnosed with either disorder? If so, how has it impacted them?
9. If symptoms between ADHD and PTSD seem unclear, how do you proceed with treatment?
10. From your experience, has differentiating between ADHD and PTSD in children become a problem in the field of children's mental health?
11. Do you have any questions for me?