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MEASUREMENT OF CHILD MALTREATMENT: A SYSTEMATIC REVIEW

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## ABSTRACT

**Purpose:** To determine what instruments (questionnaires, scales, surveys, interviews) are being used to measure child maltreatment, to examine the psychometric properties reported on those instruments and to evaluate the potential use of those instruments by health care providers in the clinical setting.

**Methods:** A systematic review was conducted across three databases including PubMed, PsycInfo and CINAHL with publication dates from January 1, 2012 to March 31, 2017. Search terms included ‘child abuse’, ‘surveys and questionnaires’, and ‘interviews’. Eight hundred and sixty seven articles were identified and screened for the inclusion/exclusion criteria. Eight hundred and thirteen articles were excluded resulting in 54 articles to analyze in the review.

**Results:** Nineteen different instruments were identified in the 54 articles. More of the instruments measured child physical and sexual abuse and less of the instruments measured child emotional abuse and neglect. Thirty-eight of the articles reported psychometric properties on the instruments used in the article with internal consistency reliability being the most common reported property. Three instruments had potential for implementation into the clinical setting for use by health care providers.

**Discussion:** There is a lack of instruments that are targeted at children populations and there are not enough articles that report the psychometric properties of the instruments that are used. The Juvenile Victimization Questionnaire, the Conflict Tactics Scale Parent-Child Version and the Child Neglect Questionnaire are all instruments that could potentially be used by health care providers in the clinical setting.

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## **Chapter 1**

### **Introduction**

Nearly 700,000 children in the United States experience maltreatment every year (National Children's Alliance, 2015). According to the Centers for Disease Control and Prevention, there are even more children victimized by this hidden epidemic that go unreported (CDC, 2016a). The CDC claims that Child Protective Services (CPS) may underestimate the true occurrence of maltreatment. A study not done by the CPS estimated that one in four children experience some form of child maltreatment in their lifetime (CDC, 2016a). Child maltreatment can be divided into four subgroups including sexual abuse, physical abuse, emotional abuse and neglect, each of which are detrimental to a child's health and safety.

The consequences for children that experience maltreatment are severe including greater problems with mental illness, substance abuse and poor physical health as adults than those that are not maltreated (Putnam, 2006). Problems with mental illness include increased vulnerability to depression (Wells et al., 2014) and higher associations with interpersonal aggression and suicide attempts (Harford et al., 2014). Problems with substance abuse include elevated rates of comorbid alcohol and cocaine dependence among children who experienced abuse than those who did not (Banducci et al., 2014b). Problems with physical health include elevated risk for multiple chronic inflammatory diseases (Matthews et al., 2014) and increased association with adult cardiovascular disease among women (Hosang et al., 2013). Other consequences for maltreated children include increased school dropout and expulsion rates due to traumatic effects on intelligence, attention and learning (Putnam, 2006).

For women specifically, studies have shown that sexual abuse and neglect during adolescence significantly increases the risk of teen childbirth (Noll & Skenk, 2013). It has also been indicated that emotionally abused girls are more likely to have eating disorder symptoms than non-abused girls (Burns et al., 2012) and sexually abused girls enter puberty earlier than non-abused girls (Noll et al., 2017). Studies on girls who were sexually abused showed they were twice as likely to have been raped or sexually assaulted and almost four times as likely to have inflicted subsequent self-harm (Noll et al., 2003).

This chapter is an introduction to the concept of child maltreatment with definitions for the various types of maltreatment, a discussion of the difficulty in measuring maltreatment in children and relevance to the health care industry. Research questions for this systematic review will also be presented.

### **Types of Child Maltreatment**

Federal and state laws define child maltreatment and their subgroups and although there are variations in definitions across the country, all forms of child maltreatment are devastating to our children. Each subgroup of child maltreatment is defined by the involvement of children in the respective types of abuse and/or neglect. Physical abuse involves any non-accidental physical injury to a child, sexual abuse involves any coercion or persuasion of children to engage in sexually explicit conduct, and emotional abuse involves any injury to a child's psychological capacity or emotional stability (Child Welfare Information Gateway, 2016). Neglect is the failure of a parent or caregiver to provide needed resources for the health, safety and well-being of a child (Child Welfare Information Gateway, 2016). Neglect is the most common form of child maltreatment (National Children's Alliance, 2015). According to the Children's Bureau, 75.3% of maltreated children were neglected, 17.2% were physically abused



and 8.4% were sexually abused in 2015. The remaining 6.9% experienced “other” types of maltreatment including threatened abuse, parent drug or alcohol abuse or safe relinquishment of a newborn (Children’s Bureau, 2015). Ultimately, an estimated 1,670 children in the United States died from maltreatment in 2015 (National Children’s Alliance, 2015).

### **Measurement of Child Maltreatment**

Various types of instruments subjectively gather data on child maltreatment including questionnaires, surveys, scales and interviews. Most instruments are an inventory of statements or questions regarding maltreatment for the subject to answer with a response that could be a simple yes or no, open-ended, a Likert scale, etc. Depending on the subject demographics of the study, data could be collected in the current perspective if the subjects are children discussing a recent experience of maltreatment. Data could also be collected in the past perspective (retrospectively) if the subjects are adolescents or adults discussing experiences of maltreatment during their childhood years. Instruments can measure the frequency of maltreatment or the severity of maltreatment or both.

**Challenges.** Collecting data on child maltreatment is an onerous task since it is such a sensitive and traumatic experience for children. It can be difficult to get children to talk about experiences of maltreatment, which is needed for utilization of most of these instruments. Since most instruments rely on self-report, response bias is also a potential problem. With retrospective inquiry, there is the issue of accurately recalling details of the maltreatment experience as well as the difficulty associated with discussing such traumatic experiences at all. According to Carr and colleagues, “there is a possibility that the trauma itself could affect the information retained in the memory as well as its meaning” (Carr et al., 2013 p. 1018). Children could also lack knowledge and think that the maltreatment is normal because they don’t know

any better. A child could have a confused relationship with the perpetrator if for example it is a parent or family member. He or she may be hesitant to admit that someone they love and care about is hurting them. In other cases, children could be fearful of the consequences from reporting the maltreatment and could wonder if it is going to make their situation even worse than it already is. All of these factors can potentially lead to inaccuracies in reports of maltreatment experiences.

**Psychometric properties.** Considering the difficulties associated with gathering accurate information about child maltreatment experiences from victims, it is very important for measurement tools to report psychometric properties. Psychometric properties include the reliability and validity of the instrument and are essential in order to precisely interpret the results from the instrument. Reliability refers to the repeatability of findings i.e. does the instrument consistently yield the same results? (Sommer, 2006). Validity refers to the credibility i.e. does the instrument measure what it is supposed to measure? (Sommer, 2006). Each should be reported in every research study that utilizes a measurement instrument so that conclusions can be rightfully drawn from the results that are found with the use of the instrument.

### **Implications in Healthcare**

Healthcare professionals are recognized by the Children's Bureau as a professional report source for reporting child maltreatment (2015). Due to the fact that healthcare providers encounter children as part of their occupation, they are required to report suspicions of child maltreatment as a referral to Child Protective Services agencies (Children's Bureau, 2015). Although healthcare providers will come into contact with many victims of child maltreatment throughout their professional career, child maltreatment is not easy to diagnose or treat since it is not typically discussed in everyday healthcare appointments. Measurement instruments like these

questionnaires or scales could help providers identify possible instances of maltreatment. It would be beneficial to utilize these instruments as part of a patient's history and physical assessment. The provider could then elaborate on the information gathered to try to better identify maltreatment victims and prevent further maltreatment from occurring.

### **Research Questions**

This systematic review will analyze research studies that used instruments to measure child maltreatment. The current study is unique in that the studies utilized both a survey or questionnaire and an interview for measurement. The purpose of this systematic review is to discuss which instruments that measure experiences of child maltreatment could be utilized in the clinical setting. This systematic review will be guided by the following research questions:

1. Which instruments (scales, questionnaires, interviews, etc.) are used in the child and adolescent population for measuring experiences of child maltreatment?
2. What are the reported psychometric properties of these instruments?
3. Which of these instruments can be used in the clinical setting?

### **Conclusion**

Child maltreatment is an extremely traumatic experience for children. There are various consequences as a result of the maltreatment that affects the victim's health and wellness in numerous ways. Maltreatment can occur in the forms of physical abuse, sexual abuse, emotional abuse, or neglect (Child Welfare Information Gateway, 2016). Various instruments such as questionnaires, scales, surveys, and interviews are used to measure frequency and severity of child maltreatment. Collecting data from children is not easy due to the sensitivity surrounding experiences of maltreatment so it is essential for instruments to have reliable and valid properties. Healthcare providers play a key role in the recognition of child maltreatment by

-serving as professional report sources (Children’s Bureau, 2015). Utilization by providers of instruments that measure maltreatment could strengthen assessment to identify victims of child maltreatment and in turn assure their current safety and direct them toward the necessary treatment.

### **Definitions**

Child Abuse and Neglect (CAPTA [Child Abuse Prevention and Treatment Act] definition): defined as “any recent act or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse, or exploitation, or an act or failure to act which presents an imminent risk of serious harm” (Child Welfare Information Gateway, 2016 p. 1).

Sexual Abuse (CAPTA [Child Abuse Prevention and Treatment Act] definition): defined as “the employment, use, persuasion, inducement, enticement, or coercion of any child to engage in, or assist any other person to engage in, any sexually explicit conduct or simulation of such conduct for the purpose of producing a visual depiction of such conduct”; or “the rape, and in cases of caretaker or interfamilial relationships, statutory rape, molestation, prostitution, or other form of sexual exploitation of children, or incest with children” (Child Welfare Information Gateway, 2016 p. 2).

Physical Abuse: defined as “any non-accidental physical injury to the child and can include striking, kicking, burning, or biting the child, or any action that results in a physical impairment of the child” (Child Welfare Information Gateway, 2016 p. 2).

Emotional Abuse: defined as “injury to the psychological capacity or emotional stability of the child as evidenced by an observable or substantial change in behavior, emotional response,

or cognition”; and “injury as evidenced by anxiety, depression, withdrawal, or aggressive behavior” (Child Welfare Information Gateway, 2016 p. 3).

Neglect: defined as “the failure of a parent or other person with responsibility for the child to provide needed food, clothing, shelter, medical care, or supervision to the degree that the child’s health, safety, and well-being are threatened with harm” (Child Welfare Information Gateway, 2016 p. 2).

## **Chapter 2**

### **Background**

A report of child maltreatment is made every 10 seconds (Childhelp, 2014). It is an epidemic that is receiving growing attention due to the negative outcomes for children that experience maltreatment. Action is required from healthcare professionals to recognize the red flags of a child potentially experiencing maltreatment. Healthcare providers like nurses and doctors need to utilize resources, including measurement instruments, to effectively assess and evaluate children for maltreatment.

In this chapter, background information on child maltreatment will be discussed including risk factors, types of maltreatment as well as healthcare involvement, the measurement instruments and their psychometric properties. Each type of child maltreatment will be described with their respective signs and symptoms and consequences for children as a result of maltreatment. Healthcare providers involvement with recognition of and assessment for prevention of further child maltreatment will also be discussed. Additionally, various types of instruments utilized by researchers will be explored. Finally, the importance of psychometric properties will be explained with definitions for the concepts of reliability and validity.

#### **Types of Maltreatment**

The types of child maltreatment include physical abuse, sexual abuse, emotional abuse, and neglect. Each has different definitions, associated signs and symptoms, and resulting consequences. Any type of maltreatment can occur on its own or simultaneously with other types of maltreatment. The majority of victims suffer from a single type of maltreatment (85.8%), but

the victims could have suffered from that single type more than once (Children's Bureau, 2014). The remaining 14.2% of victims suffer from two or more types of maltreatment (Children's Bureau, 2014). Regardless of how many types or how often, all forms of maltreatment are detrimental to a child's health and wellness.

**Physical abuse.** According to the Child Welfare Information Gateway (2013), physical abuse is non-accidental physical injury to a child that can range from minor bruises to severe fractures or death. It is inflicted by a parent, caregiver, or other person with responsibility for the child in the forms of punching, beating, kicking, biting, shaking, throwing, stabbing, choking, hitting, burning or otherwise harming (Child Welfare Information Gateway, 2013).

*Signs & symptoms.* Some signs that could indicate physical abuse include injury to a child that is not crawling yet, visible and severe injuries, injuries at different stages of healing, injuries on different surfaces of the body, unexplained injuries or injuries explained in a way that doesn't make sense, and distinctive shapes to injuries (Childhelp, 2017). Some behavioral signs of physical abuse include aggression towards peers or pets, seeming afraid of parents or other adults, fear, withdrawal, anxiety, depression, wearing long sleeves out of season, nightmares, insomnia, reports of injury or severe discipline, immaturity, acting out, emotional and behavior extremes, and self-destructive behavior or attitudes (Childhelp, 2017).

*Consequences.* Physical abuse in children is associated with mental, behavioral, and physical health problems throughout life including depression, anxiety, cardiovascular disease, and suicide (Price-Wolf, 2015). Additionally children who have been physically abused show problems with aggressive and disruptive interpersonal behavior, which sometimes leads to peer rejection (Trickett & McBride-Chang, 1995). Physical abuse is also highly correlated with alcohol use. One study showed that adolescents who were physically maltreated demonstrated

higher levels of monthly drinking frequency and more pathological drinking behaviors compared to adolescents with no history of physical abuse (Shin et al., 2016).

**Sexual abuse.** One in five girls and one in 20 boys is a victim of child sexual abuse (The National Center for Victims of Crime, 2012). Child sexual abuse refers to the involvement and violation of children in sexual activities including fondling, penetration, incest, rape, sodomy, indecent exposure and exploitation through prostitution or production of pornographic materials (Child Welfare Information Gateway, 2013).

*Signs & symptoms.* Both physical and behavioral signs can indicate sexual abuse. Some physical signs include difficulty sitting or walking, bowel problems, frequent urinary tract or yeast infections, sexually transmitted diseases or related symptoms, torn or stained or bloody undergarments as well as bleeding, bruises, pain, swelling or itching of the genital area (Childhelp, 2017). Some behavioral signs include not wanting to change clothes, withdrawal, depression, anxiety, eating disorders or preoccupation with body, poor self-image or self-care, lack of confidence, substance abuse, running away, recklessness, sleep disturbances, nightmares, bed-wetting, sexual acting out, excessive masturbation, and sexual behavior or knowledge that is advanced or unusual (Childhelp, 2017).

*Consequences.* Child sexual abuse has been associated with increased severity of symptoms in depression and posttraumatic stress disorder (Schwandt et al., 2013). This type of abuse has also been identified as a non-specific risk factor for the development of eating disorder symptoms (Burns et al., 2012). For girls specifically, experiencing sexual abuse is expected to result in low self-esteem, an impaired sense of control and competency and increased negative affect (Trickett & Putnam, 1993). History of childhood sexual abuse is also associated with



poorer sexual functioning and across the lifespan and higher prevalence of sexual dysfunction (Stephenson et al., 2012).

**Emotional abuse.** Approximately 55,196 children were officially counted as victims of child emotional abuse in 2008 (Children's Bureau, 2010). Otherwise known as psychological abuse, examples of emotional abuse include constant criticism, threats or rejection and/or withholding love, support or guidance (Child Welfare Information Gateway, 2013). Verbal and emotional assault such as continuously belittling or berating as well as isolating or ignoring a child is also considered emotional abuse (Mayo Clinic, 2015).

*Signs & symptoms.* Emotional abuse causes psychological damage to children and could be indicated by physical signs such as delays in development, wetting the bed or pants, speech disorders, health problems like ulcers or skin disorders, and obesity or weight fluctuation (Childhelp, 2017). Some behavioral signs of emotional abuse include habits like sucking or rocking, learning disabilities and developmental delays, being overly compliant or defensive, anxiety, phobias, sleep disorders, and anti-social behaviors such as violence, stealing, cheating and lying (Childhelp, 2017). Additionally extreme behavior, attempted suicide and reporting lack of attachment to a parent or caregiver could all indicate emotional abuse (Child Welfare Information Gateway, 2013).

*Consequences.* According to previous research, emotional abuse is a strong predictor of negative outcomes such as depression (Theran & Han, 2013), is more strongly linked to negative inferential styles and dysfunctional attitudes than other types of maltreatment (Wells et al., 2014) and is associated with greater severity of social anxiety, lower quality of life, and greater disability among those with social anxiety disorder (Bruce et al., 2013). Childhood emotional abuse is also significantly related to eating disorder symptoms among undergraduate

college students (Burns et al., 2012) and is linked to anxiety and mood disorders during adulthood (Huang et al., 2012).

**Neglect.** Neglect is a form of maltreatment that results from the failure of a parent, guardian, or other caregiver to provide for a child's basic needs (Child Welfare Information Gateway, 2013). This can be classified into physical neglect, medical neglect, educational neglect or emotional neglect. Physical neglect is the failure to provide necessary food or shelter or appropriate supervision, medical neglect is the failure to provide necessary medical or mental health treatment and educational neglect is the failure to educate a child or attend to special education needs (Child Welfare Information Gateway, 2013). Emotional neglect involves inattention to a child's emotional needs, failure to provide psychological care, or permitting the child to use alcohol or other drugs (Child Welfare Information Gateway, 2013).

*Signs & symptoms.* Neglect can be indicated by signs such as wearing clothing that is the wrong size or dirty or not right for the weather, often seeming hungry or showing signs of malnutrition, having very low body weight or height for age, often seeming tired or sleepy, and having hygiene problems and body odor (Childhelp, 2017). Other indications that could point to the possibility of neglect include frequent absences from school, begging or stealing food or money, lacking of medical or dental care that is needed as well as simply stating that there is no one at home to provide care (Child Welfare Information Gateway, 2013).

*Consequences.* According to Child Protective Services, there were over 500,000 children confirmed to be victims of neglect in 2011 (Freisthler et al., 2015b). Neglect is also the most common type of maltreatment that precipitates a child being placed in foster care (Taussig et al., 2012). Neglected children show poor cognitive development and poorer school performance than non-neglected children (Trickett & McBride-Chang, 1995). Previous research

also shows that children who have been neglected are less likely to feel socially accepted (Taussig et al., 2012) and are at a higher risk for engaging in future abusive behaviors (Pajer et al., 2014).

### **Risk Factors**

Maltreatment can happen to any child. However, the youngest children are the most vulnerable to maltreatment with more than one-quarter (27.7%) of victims in 2015 being under three years old (Children's Bureau, 2017). Black, American Indian or Alaskan Native, and multiple-race children also have higher rates of reported child maltreatment compared to other children (Child Trends, 2016). Other individual risk factors for maltreatment include children that have special needs like disabilities, mental retardation, mental health issues and chronic physical illnesses due to the increased caregiver burden (CDC, 2016b). Children are also at a much greater risk for maltreatment if they are in home situations like witnessing domestic violence and living with alcohol or drug abusers (Smith & Segal, 2017). Additionally, there is a greater risk for maltreatment if someone with an untreated mental illness, a lack of parenting skills, or someone that is under a lot of stress and is lacking support is caring for a child (Smith & Segal, 2017).

### **Recognition of Maltreatment**

According to the Children's Bureau, a report source is any person who notifies Child Protective Services (CPS) agencies of alleged child maltreatment in the form of a referral (2017). There are three categories of report sources including professional, nonprofessional and unclassified (Children's Bureau, 2017). Medical personnel like healthcare workers fall under the category of professional report sources, which are persons who encounter the child as part of their occupation (Children's Bureau, 2017). Other personnel included as professional report

sources are child daycare providers, educators and legal and law enforcement personnel. State laws require most professionals to notify CPS agencies of suspected maltreatment (Children's Bureau, 2017).

**Healthcare involvement.** Providers like nurses and physicians can play a key role in the recognition of child maltreatment victims as they come into the healthcare system. It is crucial that professionals are able to recognize and screen for child maltreatment to prevent further victimization. However, there is a lack of reporting by primary care clinicians who come into contact with victims of child maltreatment. In a research study done on 15,000 child injury visits, 1,600 of the children had a "suspicious" injury but only 95 (6%) were reported to Child Protective Services by the clinician (National Academies, 2012). Some reasons for not reporting included the clinician's familiarity with the family, aspects of the case history, use of available resources and negative views of Child Protective Services (National Academies, 2012). Another problem points to the fact that there is not a single diagnostic test for maltreatment; instead it is based on a combination of clinical features (National Academies, 2012). Not only that, but a diagnosis of child maltreatment also has serious implications for the child and their family. Depending on the situation, a parent or caregiver could lose their rights to take care of the child or children, which has a serious impact on the entire family.

**Provider assessment.** As these children come into the healthcare system for routine check-ups or for specific health problems, it is crucial for providers to be able to recognize the signs and symptoms of child maltreatment. This is especially important if the specific health problem for which they are seeking medical care for is related to the maltreatment that is potentially occurring. Although there are specific signs and symptoms for each type of child maltreatment, there are also general symptoms that nurses and doctors should look for.

General symptoms that a child is experiencing maltreatment include sudden changes in behavior or school performance, not receiving help for physical or medical problems brought to the parents' attention, having learning problems or difficulty concentrating not attributed to specific physical or psychological causes, coming to school or other activities early and staying late and not wanting to go home, or lacking adult supervision (Child Welfare Information Gateway, 2013). Other general symptoms include being overly compliant, passive, or withdrawn, being reluctant to be around a particular person, or always being watchful as if preparing for something bad to happen (Child Welfare Information Gateway, 2013). All of these symptoms are objective data that can be observed but the subjective data aspects need to be discussed with the children during the health history assessment.

### **Measurement Instruments**

In addition to objective assessment and evaluation of child maltreatment, measurement instruments could also be utilized for subjective assessments. Instruments like questionnaires, surveys, scales, and interviews are typically self-report inventories with items asking about situations or experiences of maltreatment. Depending on the research study, the sample could be adults measuring retrospective experiences of maltreatment (Banducci et al., 2014a; Banducci et al., 2014b; Bernstein et al., 2013a; Bernstein et al., 2013b; Bruce et al., 2013; Burnette et al., 2016; Chiu et al., 2013; Hosang et al., 2013; Huang et al., 2012; Li et al., 2015; Massey & Widom, 2013; Matthews et al., 2014; Min et al., 2013; Muenzenmaier et al., 2014; Murphy et al., 2014; Powers et al., 2015; Racine & Wildes, 2015; Reiff et al., 2012; Schwandt et al., 2013; Sheffield et al., 2013a; Sheffield et al., 2013b; Stephenson et al., 2012) or the sample could be children and adolescents measuring recent experiences of maltreatment (Auerbach et al., 2014; Burns et al., 2012; Liu et al., 2012; Oshri et al., 2012; Pajer et al., 2014; Palo &

Gilbert, 2015; Pfeffer, R. D., 2016; Shin et al., 2016; Theran & Han, 2013; Wells et al., 2014; Yoder et al., 2014). The sample could also be parents or guardians of children to collect data about their own behaviors towards children or their spouse's behavior towards children (Freer et al., 2017; Freisthler et al., 2014; Guterman, 2015; Kepple et al., 2014; Lee et al., 2012; Perepletchikova et al., 2012; Wolf, 2015).

Depending on the instrument it could range anywhere from having 12 items (Bernstein et al., 2013a; Bernstein et al., 2013b) to having 160 items (Freer et al., 2013; Pajer et al., 2014). Each respective maltreatment instrument is different; some measure all four subtypes of maltreatment (Auerbach et al., 2014; Burns et al., 2012; Matthews et al., 2014; Min et al., 2013; Perepletchikova et al., 2012; Powers et al., 2015; Schwandt et al., 2013; Shin et al., 2016; Theran & Han, 2013; Wells et al., 2014; Yoder et al., 2014;) while some just focus on one subtype of maltreatment (Freisthler et al., 2015a; Freisthler et al., 2015b; Kepple et al., 2014; Palo & Gilbert, 2015).

Most instruments measuring maltreatment are used in the research setting for studies with child maltreatment as a variable of interest. It would be beneficial for these instruments to be used in healthcare to strengthen assessments of children in cases where maltreatment is more difficult to identify. A child who is experiencing abuse or neglect may be afraid to tell anyone about it and/or may not show obvious signs or symptoms of maltreatment. Therefore, having an instrument like a questionnaire as part of the health history assessment could reveal the possibility of maltreatment to providers. A more focused assessment could then be done to better identify and subsequently report suspicions of child maltreatment. However, due to the self-report nature of these maltreatment instruments, it is essential that the psychometric properties of the instruments are known.

## **Psychometric Properties**

Psychometric properties such as reliability and validity are vital in research to determine the accuracy and consistency of measurement instruments. It is very important to assess these properties to establish the soundness of the instruments in relation to the variables in the study. “The appropriateness of instruments and the extent to which reliability and validity are demonstrated has a profound influence on the strength of the findings and the extent to which bias is present,” (LoBiondo-Wood & Haber, 2014 p. 290).

**Reliability.** The two main types of reliability are test-retest reliability and internal consistency reliability. “Test-retest reliability refers to the ability of a test to yield consistent scores over time when administered to a population on more than one occasion” (Laulik et al., 2015 p. 337). The correlation coefficient measures the degree of agreement between two sets of scores; a correlation of +1 indicates perfect agreement and -1 shows complete disagreement (Kline, 1993). If a test is to be of any value, a correlation of 0.8 is minimum, samples should be at least 100 subjects and the two testings should be at least three months apart (Kline, 1993). “Internal consistency refers to the extent to which a test measures what it is intended to measure” (Laulik et al., 2013 p. 337). Coefficient alpha is the best index of internal consistency and should ideally be around 0.9 and never below 0.7 (Kline, 1993). High reliability for both test-retest and internal consistency is essential for the validity of tests. (Kline, 1993).

**Validity.** Validity refers to the degree to which a test measures what it claims to measure (Kline, 1993). Types of validity include concurrent validity, predictive validity, content validity and construct validity. “A test is said to possess concurrent validity if it can be shown to correlate highly with another test of the same variable which was administered at the same time” (Kline, 1993 p. 17). This type of validity is only useful if good criterion exists otherwise it is best

regarded as an aspect of construct validity (Kline, 1993). “Predictive validity refers to the extent to which scores on a test are able to predict a related outcome or criterion” (Laulik et al., 2015 p. 338). For a test to demonstrate concurrent and future predictive validity, data pertaining to sensitivity, specificity, frequency of false positives and frequency of false negatives are needed (Laulik et al., 2015). “Content validity is the degree to which items on a test instrument adequately represent all important aspects of the construct being measured” (Laulik et al., 2015 p. 338). This type of validity is only applicable to a small range of tests where the domain of items is clear cut such as tests of attainment and ability (Kline, 1993). “Construct validity assesses the ability of a measure to assess the hypothesized aspects of a theoretical construct” (Laulik et al., 2015 p. 338). This type of validity is established by setting up a number of hypotheses and putting them to the test (Kline, 1993). In conclusion, both reliability and validity are two major criteria to evaluate the quality of instruments.

## **Conclusion**

Child maltreatment is known to cause physical and psychological health problems in children that are victims of the trauma. As they come into the healthcare system, it is imperative that providers are able to recognize and properly assess children and adolescents that could be experiencing maltreatment. This assessment can be done through objective observations of signs and symptoms or consequences that result from maltreatment. The assessment should also consider a subjective aspect with the potential use of instruments during a health history screening. Currently, these instruments are used in research but some may be able to be implemented into the certain clinical settings as well. However, in order to be implemented, the instruments need to have adequate reliability and validity to draw accurate conclusions from the results. Healthcare providers should have as many resources available to them as possible to



conduct a thorough assessment of children that are suspected to be experiencing maltreatment.

With a thorough assessment, hopefully more victims can be identified and further maltreatment can be prevented.

## **Chapter 3**

### **Methods**

#### **Systematic Review**

A systematic review was conducted in PubMed, PsycInfo and CINAHL databases using a variety of targeted search terms. Both controlled and title abstract terms were used for the variables of the study, which included child abuse, surveys and questionnaires, and interviews. Searches from all three databases were limited to human subjects, English language and publication date from January 1, 2012 to March 31, 2017.

In PubMed, the combination of controlled and title abstract vocabulary for child abuse yielded 4,778 results. The combination of controlled and title abstract vocabulary for surveys and questionnaires yielded 289,182 results. The combination of controlled and title abstract vocabulary for interviews yielded 57,018 results. Finally, the combination of all three searches yielded 241 articles to be screened from PubMed.

In PsycInfo, the combination of controlled and title abstract vocabulary for child abuse yielded 6,219 results. The combination of controlled and title abstract vocabulary for surveys and questionnaires yielded 120,104 results. The combination of controlled and title abstract vocabulary for interviews yielded 150,169 results. Finally, the combination of all three searches yielded 493 articles to be screened from PsycInfo.

In CINAHL, the combination of controlled and title abstract vocabulary for child abuse yielded 1,229 results. The combination of controlled and title abstract vocabulary for surveys and questionnaires yielded 82,140 results. The combination of controlled and title

abstract vocabulary for interviews yielded 30,784 results. Finally, the combination of all three searches yielded 133 articles to be screened from CINAHL.

### **Inclusion/Exclusion Criteria**

Among the 867 total articles that resulted from the search, 139 were excluded as duplicates. The 728 records were then screened for relevance of their titles and abstracts. Records were included if (1) the title or abstract mentioned a child maltreatment measurement instrument and if (2) the study was conducted in the United States. Records were excluded if (1) the title or abstract did not mention a child maltreatment measurement instrument; (2) the study was conducted outside of the United States; (3) the study utilized a national survey or if (4) the study was not related to child maltreatment. Records were also excluded if (5) they were not an original research study i.e. case study, narrative, brief report etc. or if (6) they were a thesis or dissertation. After excluding 461 records, 267 full text records were examined for the same inclusion and exclusion criteria plus one additional exclusion criteria. Full text records were also excluded if there was an insufficient description about the measurement instrument in the methods section. This resulted in 54 articles to be analyzed for the systematic review (See Figure 1). The articles were reviewed and data were extracted from each article using the Matrix Method (See Table 1).

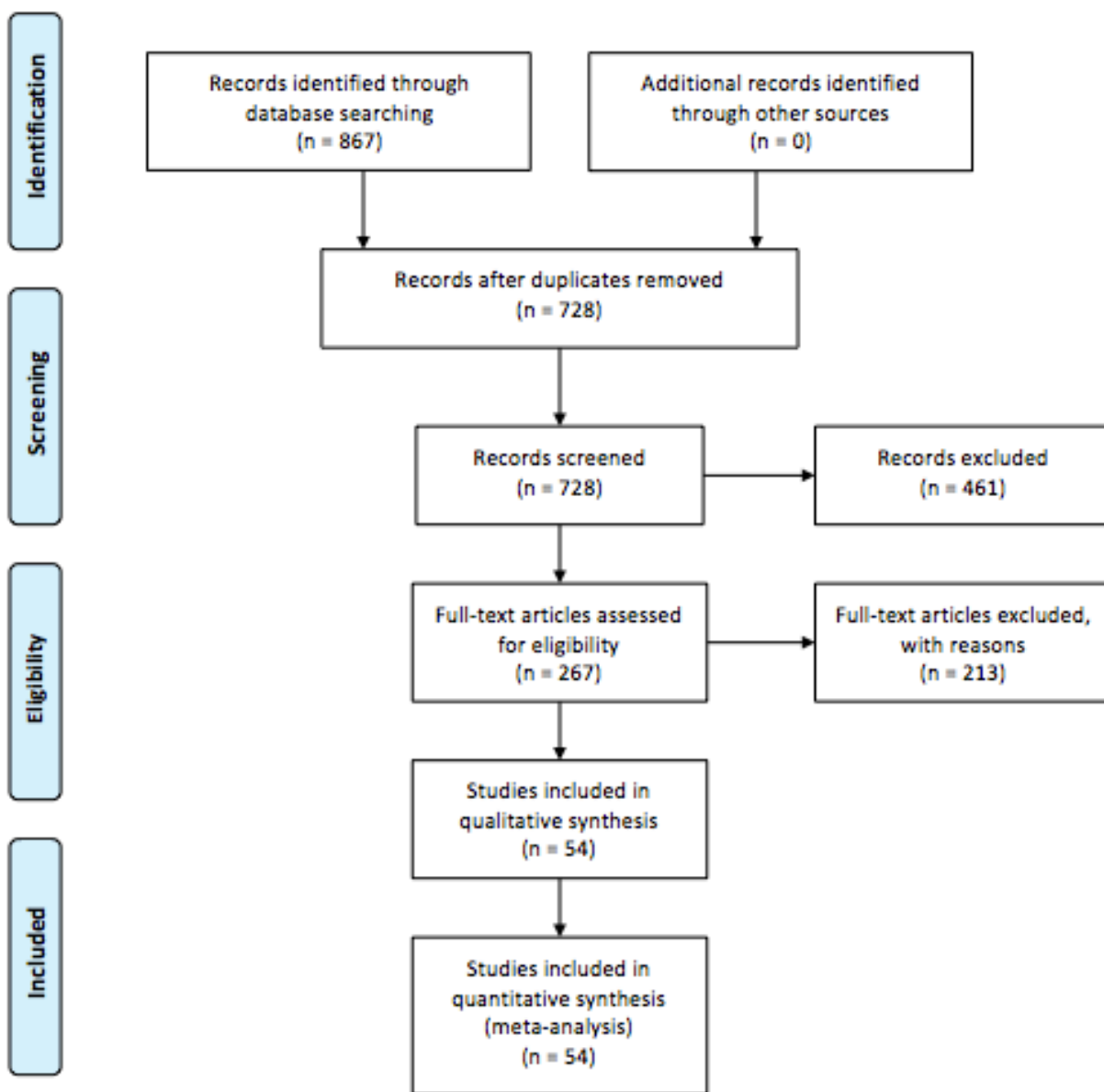


Figure 1: PRISMA Flow Diagram for Article Selection Process

## Chapter 4

### Results

#### Maltreatment Instruments

Of the 54 articles included in the systematic review, there were 19 different instruments utilized for the measurement of child maltreatment. The Childhood Trauma Questionnaire Short Form (CTQ-SF) was utilized in 25 different articles, which was the most frequent of all the instruments (Auerbach et al., 2014; Banducci et al., 2014a; Banducci et al., 2014b; Bender et al., 2014; Bruce et al., 2013; Burns et al., 2012; Chesin et al., 2015; Gowin et al., 2013; Huang et al., 2012; Li et al., 2015; MacDonald et al., 2015; Madigan et al., 2012; Matthews et al., 2014; Min et al., 2013; Pajer et al., 2014; Perepletchikova et al., 2012; Powers et al., 2015; Racine & Wildes, 2015; Schwandt et al., 2013; Sexton et al., 2015; Sheffield et al., 2013a; Sheffield et al., 2013b; Theran & Han, 2013; Wells et al., 2014; Yoder et al., 2014). The second most often used instrument was the Conflict Tactics Scale, Parent Child Version (CTS-PC), which was used in seven different articles (Freisthler et al., 2014; Freisthler et al., 2015a; Freisthler & Grunewald, 2013; Freisthler & Wolf, 2016; Guterman, 2015; Lee et al., 2012; Price-Wolf, 2015). The Multidimensional Neglectful Behavior Scale (MNBS) was used in three different articles (Freisthler et al., 2015a; Freisthler et al., 2015b; Kepple et al., 2014). The Child Abuse Potential Inventory (CAPI) was also used in three different articles (Freer et al., 2017; Laulik et al., 2015; Pajer et al., 2014). Multiple instruments were used in two different articles, including the Adverse Childhood Experiences Questionnaire (ACE) (Burnette et al., 2016; Murphy et al., 2014), the Brief Betrayal Trauma Survey (BBTS) (Bernstein et al., 2013a; Bernstein et al., 2013b), the Childhood Trauma Questionnaire (CTQ) (Bernstein et al., 2013b; Shin et al., 2016), the Histories of Physical and Sexual Abuse Questionnaires (HPSAQ)

(Muenzenmaier et al., 2014; Reiff et al., 2012), the Lifetime Experiences Questionnaire (LEQ) (Havlicek & Courtney, 2016; Liu et al., 2012), The remaining nine instruments were each only used in one article, including the Boston Area Community Health Survey (BACH) (Chiu et al., 2013), the Child Abuse and Trauma Scale (CATS) (Oshri et al., 2012), the Child Neglect Questionnaire (CNQ) (Stewart et al., 2015), the Childhood Experiences of Care and Abuse Questionnaire (CECA-Q) (Hosang et al., 2013), the Childhood Trauma Interview (CTI) (Vrshek-Schallhorn et al., 2014), the Juvenile Victimization Questionnaire (JVQ) (Pfeffer, 2016), the Lifetime Trauma and Victimization History Interview (LTVH) (Massey & Widom, 2013), the Maltreatment and Abuse Chronology of Exposure Scale (MACE) (Shin et al., 2016), the Russell Sexual Abuse Interview Schedule (Palo & Gilbert, 2015) and the Trauma History Questionnaire (THQ) (Stephenson et al., 2012). Characteristics about each instrument including the subscales of the instrument, number of items, time to administer, psychometric properties and targeted age group can be found in Table 3.

**Physical abuse.** Sixteen of the 19 instruments (84.2%) had one or more items that measured childhood physical abuse. The instruments included the ACE, BACH, BBTS, CATS, CAPI, CECA-Q, CTI, CTQ, CTQ-SF, CTS-PC, HPSAQ, JVQ, LEQ, LTVH, MACE and THQ. Two of those 16 instruments measured only physical abuse out of the four child maltreatment subtypes. Those two instruments were the Child Abuse Potential Inventory (CAPI) and the Conflict Tactics Scale, Parent Child Version (CTS-PC).

**Sexual abuse.** Fifteen of the 19 instruments (78.9%) had one or more items that measured childhood sexual abuse. The instruments included the ACE, BACH, BBTS, CATS, CECA-Q, CTI, CTQ, CTQ-SF, HPASQ, JVQ, LEQ, LTVH, MACE, the Russell Sexual Abuse

Interview Schedule and THQ. One of those 15 instruments, the Russell Sexual Abuse Interview Schedule, measured only childhood sexual abuse out of the four child maltreatment subtypes.

**Emotional abuse.** Ten of the 19 instruments (52.6%) had one or more items that measured childhood emotional abuse. The instruments included the ACE, BACH, BBTS, CATS, CTI, CTQ, CTQ-SF, JVQ, LEQ, and MACE. None of these instruments measured solely childhood emotional abuse out of the four childhood maltreatment subtypes.

**Neglect.** Nine of the 19 instruments (47.3%) had one or more items that measured childhood neglect. The instruments included the CATS, CNQ, CTI, CTQ, CTQ-SF, JVQ, LEQ, MACE and the MNBS. Two of those 9 instruments measured only childhood neglect out of the four child maltreatment subtypes. Those two instruments were the Child Neglect Questionnaire (CNQ) and the Multidimensional Neglectful Behavior Scale (MNBS).

**All.** Seven of the 19 instruments (36.8%) measured all four of the subtypes of child maltreatment, including physical abuse, sexual abuse, emotional abuse and neglect. Those instruments were the Child Abuse and Trauma Scale (CATS), the Childhood Trauma Interview (CTI), the Childhood Trauma Questionnaire (CTQ), the Childhood Trauma Questionnaire – Short Form (CTQ-SF), the Juvenile Victimization Questionnaire (JVQ), the Lifetime Experiences Questionnaire (LEQ) and the Maltreatment and Abuse Chronology of Exposure Scale (MACE). A breakdown of each instrument and which subtypes of child maltreatment they measure can be found in Table 2.

### **Sample Age**

The instruments administered in each of the articles included various ages of participants. For instance, some instruments were administered to children (under the age of 18) regarding their recent experiences of child maltreatment (Auerbach et al., 2014; Havlicek &

Courtney, 2016; Lee et al., 2012; Madigan et al., 2012; Oshri et al., 2012; Pajer et al., 2014; Pfeffer et al., 2016; Vrshek-Schallhorn et al., 2014). Other instruments were administered to adults (over the age of 18) regarding past experiences of maltreatment when they were children (Banducci et al., 2014a; Banducci et al., 2014b; Bender et al., 2014; Bernstein et al., 2013a; Bernstein et al., 2013b; Bruce et al., 2013; Burnette et al., 2016; Burns et al., 2012; Chesin et al., 2015; Chiu et al., 2013; Gowin et al., 2013; Havlicek & Courtney, 2016; Huang et al., 2012; Hosang et al., 2013; Kepple et al., 2014; Li et al., 2015; Liu et al., 2012; MacDonald et al., 2015; Massey & Widom, 2013; Matthews et al., 2014; Min et al., 2013; Muenzenmajer et al., 2014; Murphy et al., 2014; Palo & Gilbert, 2015; Pereplechikova et al., 2012; Powers et al., 2015; Racine & Wildes, 2015; Reiff et al., 2012; Schwandt et al., 2013; Sexton et al., 2015; Sheffield et al., 2013a; Sheffield et al., 2013b; Shin et al., 2016; Stephenson et al., 2012; Theran & Han, 2013; Wells et al., 2014; Yoder et al., 2014).

A few instruments were administered to caregivers of children reporting their child's experiences of maltreatment (Freer et al., 2017; Freisthler et al., 2014; Freisthler et al., 2015a; Freisthler et al., 2015b; Freisthler & Gruenewald, 2013; Freisthler & Wolf, 2016; Guterman, 2015; Kepple et al., 2014; Lee et al., 2012; Price-Wolf, 2015). Seven of the 10 articles that utilized caregiver reports used the Conflict Tactics Scale, Parent Children Version (CTS-PC) instrument. Two of the 10 articles used the Multidimensional Neglectful Behavior Scale (MNBS) and one of the 10 articles used the Child Abuse Potential Inventory (CAPI).

### **Psychometric Properties**

**Not reported.** Twenty articles included in the systematic review did not report psychometric properties of the instrument utilized. This means that there were no reliability or validity properties reported for the instrument(s) in the article. There were nine articles of the 25



that used the Childhood Trauma Questionnaire Short Form (CTQ-SF) that did not report psychometric properties (Bruce et al., 2013; Gowin et al., 2013; Huang et al., 2012; Li et al., 2015; Madigan et al., 2012; Pajer et al., 2014; Schwandt et al., 2013; Sheffield et al., 2013a; Sheffield et al., 2013b). There were three articles of the seven that used the Conflict Tactics Scale, Parent Child Version (CTS-PC) that did not report psychometric properties (Freisthler & Gruenewald, 2013; Freisthler et al., 2015a; Guterman et al., 2015). There were two articles of the three that used the Multidimensional Neglectful Behavior Scale (MNBS) that did not report psychometric properties (Freisthler et al., 2015b; Kepple et al., 2014). There was one article of the two that used the Brief Betrayal Trauma Survey (BBTS) and the Lifetime Experiences Questionnaire (LEQ) that did not report psychometric properties (Bernstein et al., 2013b; Havlicek & Courtney, 2016 respectively). Finally the only articles that used the Boston Area Community Health Survey (BACH), the Juvenile Victimization Questionnaire (JVQ), the Lifetime Trauma and Victimization History Interview (LTVH) and the Russell Sexual Abuse Interview Schedule did not report psychometric properties (Chiu et al., 2013; Massey & Widom, 2013; Palo & Gilbert, 2015; Pfeffer et al., 2016).

**Reported.** Thirty-eight articles in the matrix reported at least one value of reliability or validity for the instrument(s) utilized.

*Internal consistency reliability.* Thirty-two of the 38 articles (84.2%) reported internal consistency reliability with Cronbach's alpha values. Twenty-five of the 32 articles reported alpha values based on their current study or sample (Auerbach et al., 2014; Banducci et al., 2014a; Bender et al., 2014; Bernstein et al., 2013a; Bernstein et al., 2013b; Burnette et al., 2016; Burns et al., 2012; Chesin et al., 2015; Freisthler et al., 2015a; Lee et al., 2012; Liu et al., 2012; MacDonald et al., 2015; Matthews et al., 2014; Min et al., 2013; Murphy et al., 2014;

Oshri et al., 2012; Perepletchikova et al., 2012; Powers et al., 2015; Racine & Wildes, 2015; Sexton et al., 2015; Shin et al., 2016; Stewart et al., 2015; Theran & Han, 2013; Wells et al., 2014; Yoder et al., 2014). Seven of the 32 articles reported alpha values from another study or sample (Banducci et al., 2014b; Freer et al., 2017; Freisthler et al., 2014; Freisthler & Wolf, 2016; Hosang et al., 2013; Laulik et al., 2015; Price-Wolf, 2015).

According to Kline (1993), internal consistency reliability alpha values should ideally be around 0.9 and never below 0.7. Eighteen of the 32 articles that reported internal consistency reliabilities had alpha values greater than 0.7 (Auerbach et al., 2014; Banducci et al., 2014a, Banducci et al., 2014b; Bender et al., 2014; Bernstein et al., 2013b; Burns et al., 2012; Chesin et al., 2015; Freer et al., 2017; Hosang et al., 2013; Matthews et al., 2014; Murphy et al., 2014; Powers et al., 2015; Racine & Wildes, 2015; Sexton et al., 2015; Shin et al., 2016; Stewart et al., 2015; Wells et al., 2014; Yoder et al., 2014). All but four of those 18 articles reported alpha values greater than 0.9. Fourteen of the 32 articles that reported internal consistency reliabilities had at least one alpha value less than 0.7 (Bernstein et al., 2013a, Burnette et al., 2016; Freisthler et al., 2014; Freisthler et al., 2015a; Freisthler & Wolf, 2016; Lee et al., 2012; Liu et al., 2012; Min et al., 2013; Laulik et al., 2015; Oshri et al., 2012; Perepletchikova et al., 2012; Price-Wolf, 2015; Theran & Han, 2013).

*Inter-rater reliability.* Five of the 38 articles (13.2%) reported inter-rater reliability with various values including Cohen's kappa,  $r$  and intraclass correlation coefficients. Two of the articles reported values based on their current study or sample (Min et al., 2013; Vrshek-Schallhorn et al., 2014) and three of the articles reported values from another study or sample (Muenzenmaier et al., 2014; Reiff et al., 2012; Stewart et al., 2015).

*Test-retest reliability.* Five of the 38 articles (13.2%) reported test-retest reliability with coefficient values. All five of the articles reported values from another study or sample (Bernstein et al., 2013b; Hosang et al., 2013; Laulik et al., 2015; Shin et al., 2016; Stephenson et al., 2012). Also according to Kline (1993), a correlation of 0.8 is minimum if a test is to be of any value. Two of the five articles had correlations greater than 0.8 (Bernstein et al., 2013b; Shin et al., 2016) and three of the five articles had correlations less than 0.8 (Hosang et al., 2013; Laulik et al., 2015; Stephenson et al., 2012).

*Validity.* Three of the 38 articles (7.9%) reported sensitivity percentages (Muenzenmaier et al., 2014; Pajer et al., 2014; Reiff et al., 2012). All three of the articles reported percentages from another study or sample. Additionally, one article reported specificity percentages from another study or sample (Pajer et al., 2014), one article reported concurrent validity from another study or sample (Hosang et al., 2013) and one article reported construct validity from their current study (Stewart et al., 2015).

### **Original Article Findings**

In order to consider an instrument for possible clinical use, information is needed regarding the instrument such as number of items and time it takes to administer. The articles in the review that were put into the matrix did not provide information on these factors so it was sought out from other sources. A search was conducted in two databases, Health and Psychosocial Instruments (HAPI) and PsycTests, which were used to search for the original articles of each instrument. The name of the instrument was entered into the search field and original articles were found for 18 of the 19 instruments. Emails were sent to the creators of the three instruments that did not have original articles available in the databases to attempt to

inquire about the instrument information. One email address no longer exists and the other two never responded.

There was, however, an unexpected finding from this email process that altered the results of this review. One creator that responded explained that his instrument, The Maltreatment Classification System, does not actually measure child maltreatment; instead it quantifies information in reports made to Child Protective Services. Therefore this instrument and the modified version of the instrument, which were used in four different articles, were then excluded from the review. Another instrument, The Kiddie Schedule for Affective Disorders and Schizophrenia, was also excluded during the process of finding original articles. Although not from emailing, the KSADS was excluded following Internet searches that were conducted for more information on the instrument. Internet searches were only conducted because original articles were not able to be located in either of the databases that identified other instrument original articles. A PDF document from Yale University had the entire instrument online and revealed that the items regarding physical and sexual abuse were used for screening for PTSD (Kaufman et al., 2016). Therefore this instrument, which was used in one article, was excluded due to it not being an instrument that directly measures child maltreatment.

The information that was gathered from the databases and original articles was then put into a table to compare and contrast information about the instruments (see Table 3). The number of items in the instrument ranged from 9 items to 160 items. The reported time it takes to administer the instruments ranged from 5 minutes to 80 minutes. Almost all of the instruments target an adult age group (18 years or older) to assess their experiences of child maltreatment retrospectively. Only three of the instruments target a child age group to assess their present experiences of child maltreatment. The Juvenile Victimization Questionnaire,

targets children and adolescents 8-17 years of age, the Child Neglect Questionnaire targets children 10-12 years of age but includes both parents as well and the Conflict Tactics Scale, Parent-Child Version targets parents of children but does not assess children themselves.

### **Level of Evidence**

This systematic review used the Johns Hopkins Nursing Evidence-Based Practice Rating Scale (Newhouse et al., 2005). Levels rated the strength of evidence with Level I for experimental studies or randomized control trials, Level II for quasi-experimental studies or Level III for non-experimental or descriptive studies. Letters rated the quality of evidence with A for high quality, B for good quality and C for low quality. The articles in this systematic review ranged from Level IC to Level IIIC.

There were 24 articles that were rated Level III A (Auerbach et al., 2014; Banducci et al., 2014a; Bernstein et al., 2013a; Bernstein et al., 2013b; Burnette et al., 2016; Burns et al., 2012; Chesin et al., 2015; Lee et al., 2012; Liu et al., 2012; MacDonald et al., 2015; Matthews et al., 2014; Min et al., 2013; Murphy et al., 2014; Perepletchikova et al., 2012; Pfeffer, 2016; Oshri et al., 2012; Powers et al., 2015; Racine & Wildes, 2015; Sexton et al., 2015; Shin et al., 2016; Theran & Han, 2013; Vrshek-Schallhorn et al., 2014; Wells et al., 2014; Yoder et al., 2014).

There were 14 articles that were rated Level III B (Banducci et al., 2014b; Freer et al., 2017; Freisthler et al., 2014; Freisthler et al., 2015a; Freisthler & Wolf, 2016; Hosang et al., 2013; Laulik et al., 2015; Muenzenmaier et al., 2014; Pajer et al., 2014; Price-Wolf, 2015; Reiff et al., 2012; Shin et al., 2016; Stephenson et al., 2012; Stewart et al., 2015).

There were 16 articles that were rated Level III C (Bender et al., 2014; Bernstein et al., 2013b; Chiu et al., 2013; Freisthler et al., 2015a; Freisthler et al., 2015b; Freisthler &

Gruenewald, 2013; Guterman, 2015; Havlicek & Courtney, 2016; Huang et al., 2012; Kepple et al., 2014; Li et al., 2015; Madigan et al., 2012; Massey & Widom, 2013; Pajer et al., 2014; Palo & Gilbert, 2015; Sheffield et al., 2013a).

There were two articles that were rated Level I C (Bruce et al., 2013; Gowin et al., 2013). There were also two articles that were rated Level II C (Schwandt et al., 2013; Sheffield et al., 2013b).

**Table 1: Matrix for Data Extraction from Articles Included in the Systematic Review**

<b>Instrument</b>	<b>Author</b>	<b>Journal &amp; Year</b>	<b>Title</b>	<b>Purpose</b>	<b>Sample</b>	<b>Psychometrics</b>	<b>Findings</b>	<b>Implications</b>	<b>Level of Evidence</b>
<b>Adverse Childhood Experiences Questionnaire</b>	Burnette et al.	Health & Social Work, 2016	A comparison of risk and protective factors related to depressive symptoms among American Indian and Caucasian Older Adults	Examine factors related to depression among a sample of American Indian older adults	N=491 older adults aged 50 years and over from a sample of American Indians (AI)/ Alaska Natives (AN)	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.74</math> for childhood abuse and <math>\alpha=0.50</math> for childhood neglect in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• AI/AN reported 2.5 times more neglect than non-AI/AN</li> <li>• Childhood abuse is a risk factor for depression among AI/AN</li> <li>• AI/AN experienced high levels of child abuse</li> </ul>	<ul style="list-style-type: none"> <li>• Treatments for childhood trauma among AI/AN to prevent depressive symptoms and associated suicide</li> <li>• Culturally relevant treatments for efficacy</li> </ul>	Level III A
	Murphy et al.	Child Abuse & Neglect, 2014	Adverse Childhood Experiences (ACEs) Questionnaire and Adult Attachment Interview (AAI): Implications for parent child relationships	Exploration of the validity of the ACEs Questionnaire compared to AAI responses classified U/CC	N=75 mothers aged 19 to 50 years with N=41 clinical sample and N=34 community sample	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.88</math> for the items in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Significantly higher rates of four or more categories of ACEs in clinical sample than community sample</li> <li>• Exposure to greater numbers of ACEs increased likelihood of AAI responses judged U/CC (highly disparate states of mind)</li> </ul>	<ul style="list-style-type: none"> <li>• Collecting parent's responses on questionnaire could inform pediatric and family service providers who is most at risk for disturbed parent-child relationships</li> <li>• Use of questionnaire recommended in pediatric, mental health and other health settings for protection against child maltreatment</li> </ul>	Level III A

<b>Boston Area Community Health Survey</b>	Chiu et al.	Violence and Victims, 2013	Prevalence and overlap of childhood and adult physical, sexual, and emotional abuse: A descriptive analysis of results from the Boston Area Community Health (BACH) Survey	Establish prevalence of physical, emotional, and sexual abuse by lifestage and gender; establish overlap between types of abuse within gender; examine demographic and childhood abuse relationships with abuse in adulthood	N=5,502 participants aged 30 to 79 years	<ul style="list-style-type: none"> <li>• Higher percentage of women that reported physical, sexual and emotional abuse in childhood was higher than men</li> <li>• Almost one out of five subjects reported emotional abuse in childhood</li> <li>• Reporting all three types of childhood abuse increased odds 36 times for reporting any adult abuse</li> </ul>	<ul style="list-style-type: none"> <li>• High prevalence of abuse as a risk factor for physical and mental health outcomes and behavioral responses</li> <li>• Childhood abuse prevention to help lower adulthood abuse and negative mental and physical health outcomes</li> </ul>	Level III B
<b>Brief Betrayal Trauma Survey</b>	Bernstein et al.	Journal of Trauma & Dissociation, 2013	In an idealized world: Can discrepancies across self-reported parental care and high betrayal trauma during childhood predict infant attachment avoidance in the next generation?	Examine discrepancies between participants' endorsements of childhood high betrayal trauma and participants' reports of childhood parental care would predict their infants' attachment classification in the Strange Situation	N=105 pregnant women aged 18 to 38 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.61</math> for childhood high betrayal trauma, <math>\alpha=0.56</math> for adulthood high betrayal trauma in the current study</li> <li>• Highest levels of childhood high betrayal trauma associated with offspring attachment avoidance</li> <li>• No childhood high betrayal trauma associated with offspring attachment security</li> </ul>	<ul style="list-style-type: none"> <li>• Need for specification of the relationship participants had with abusers for each victimization and rate the level of each parent's care separately</li> </ul>	Level III A



	Bernstein et al.	Journal of Aggression, Maltreatment & Trauma, 2013	Sticks and stones may break my bones but words relate to adult physiology? Child abuse experience and women's sympathetic nervous system response while self-reporting trauma	Examine the association between self-reported childhood abuse experience and current sympathetic nervous system (SNS) dysregulation in a sample of adult women selected for various risk factors	N=105 pregnant women aged 18 to 38 years	<ul style="list-style-type: none"> <li>• Childhood emotional abuse experiences associated with failure to habituate to an emotionally stimulating task</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of long-term costs of emotional abuse to increase clinician vigilance about caregivers emotionally abusing children</li> <li>• Questionnaire is a tool highly accessible to clinicians to use for early identification of stress dysregulation and early intervention in cases of childhood emotional abuse</li> </ul>	Level III C	
<b>Child Abuse and Trauma Scale</b>	Oshri et al.	American Journal of Public Health, 2012	Childhood maltreatment histories, alcohol and other drug use symptoms, and sexual risk behavior in a treatment sample of adolescents	Evaluate relations among three types of child maltreatment (sexual abuse, physical punishment, neglect), alcohol and other drug use symptoms, and sexual risk behavior among adolescents receiving substance use treatment services	N=394 adolescents with mean age=16.3 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.87</math> for neglect, <math>\alpha=0.65</math> for physical abuse and <math>\alpha=0.74</math> for sexual abuse in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Childhood neglect and sexual abuse associated with substance abuse and dependence symptoms</li> <li>• Sexual abuse more likely to be associated with alcohol use symptoms than with drug use symptoms when adjusting for neglect experiences</li> </ul>	<ul style="list-style-type: none"> <li>• Need for adolescents with maltreatment history receiving substance use treatment to address emotional distress from maltreatment for relapse prevention and reduction of co-occurring health risk behaviors</li> </ul>	Level III A

<b>Child Abuse Potential Inventory</b>	Freer et al.	Journal of Family Violence, 2017	The impact of child abuse potential on adaptive functioning: Early identification of risk	Examine the association between Child Abuse Potential Inventory (CAPI) scores, demographic measures, and service utilization and development	N=116 caregivers of children aged 3 to 12 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.92-0.96</math> for controls and <math>\alpha=0.95-0.98</math> for abusers</li> </ul>	<ul style="list-style-type: none"> <li>• Child abuse strongly predicts maladaptive behavior and developmental outcomes in children</li> </ul>	<ul style="list-style-type: none"> <li>• Utilizing child abuse potential as a marker for negative parenting may identify children at risk prior to child maltreatment occurring</li> <li>• Clinical interventions to provide services to caregivers and children for early identification of at-risk children</li> </ul>	Level III B
	Laulik et al.	Child Abuse Review, 2015	The use of the Child Abuse Potential Inventory in the assessment of parents involved in care proceedings	Evaluate the psychometric properties of the Child Abuse Potential Inventory and provide overview of potential uses and limitations		<p>Reliability</p> <ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.39-0.97</math> with <math>\alpha=0.73-0.89</math> for rigidity subscale and <math>\alpha=0.90-0.97</math> for distress subscale</li> <li>• Test-retest coefficients=0.91 for one day, 0.90 for one week, 0.83 for one month, 0.75 for three months</li> </ul>	<p>Validity</p> <ul style="list-style-type: none"> <li>• Concurrent predictive validity between abusive and non-abusive parents 85-90% of the time</li> </ul>	<ul style="list-style-type: none"> <li>• Robust psychometric properties and ability to discriminate between physically abusive and non-abusive parents</li> <li>• Support of the use of CAPI in the assessment of parents involved in care proceedings</li> </ul>	Level III B

Pajer et al.	Canadian Journal of Psychiatry, 2014	Physical child abuse potential in adolescent girls: Associations with psychopathology, maltreatment, and attitudes toward child-bearing	Examine associations between psychosocial and demographic factors and the potential for child abuse in adolescent girls who are not pregnant and not mothers	N=195 adolescent girls aged 15 to 16 years	<ul style="list-style-type: none"> <li>• Sensitivity of 80% and specificity of 90% in samples of abusive parents</li> </ul>	<ul style="list-style-type: none"> <li>• Child abuse potential associated with conduct disorder, internalizing disorder, negative attitudes toward child-bearing and childhood exposure to maltreatment</li> <li>• Exposure to abuse or neglect puts one at risk for future abusive behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Working with girls with conduct disorder before pregnancy to reduce potential for future abuse</li> <li>• Supplement or change education about child-bearing as an approach to preventing abuse for girls with conduct disorder</li> </ul>	Level III B	
<b>Child Neglect Questionnaire</b>	Stewart et al.	Journal of Interpersonal Violence, 2015	Development and psychometric evaluation of the Child Neglect Questionnaire	Develop and test the psychometric properties of the Child Neglect Questionnaire	N=172 families with children aged 10 to 12 years	<p>Reliability</p> <ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.91</math> by child, <math>\alpha=0.86</math> by self, <math>\alpha=0.88</math> by spouse for maternal neglect and <math>\alpha=0.96</math> by child, <math>\alpha=0.92</math> by self, <math>\alpha=0.96</math> by spouse for paternal neglect</li> <li>• Intraclass correlation coefficients=0.27-0.49</li> </ul>	<p>Validity</p> <ul style="list-style-type: none"> <li>• Construct validity threshold parameter above 0.60</li> </ul>	<ul style="list-style-type: none"> <li>• Best concurrent validity in child versions of child neglect by both parents</li> <li>• Psychometric results support the use of the CNQ for exploration of child neglect</li> </ul>	Level III B

<b>Childhood Experience of Care and Abuse Questionnaire</b>	Hosang et al.	Child Abuse & Neglect, 2013	Gender specific association of child abuse and adult cardiovascular disease in a sample of patients with Basal Cell Carcinoma	Examine whether child abuse or neglect is more strongly associated with adult CV disease	N=116 participants with mean age=57.75 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.80-0.81</math> in all four subscales</li> <li>• Test-retest reliability correlation coefficients 0.53-0.84 over 24 months</li> <li>• Concurrent validity correlations as high as 0.66</li> </ul>	<ul style="list-style-type: none"> <li>• Child abuse associated with adult CV disease among women</li> <li>• No significant association of neglect and adult CV disease</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of considering child abuse for women related to CV disease, who might benefit considerably from CV disease prevention and interventions</li> </ul>	Level III B
<b>Childhood Trauma Interview</b>	Vrshek-Schallhorn et al.	Psychological Assessment, 2014	Validating new summary indices for the Childhood Trauma Interview: Associations with first onsets of Major Depressive Disorder and anxiety disorders	Describe new CTI summary scoring methods and test associations between the CTI and first onsets of MDD and anxiety disorders	N=332 participants with average age=16.9 years	<ul style="list-style-type: none"> <li>• Intraclass correlation coefficients <math>\kappa=0.82-0.92</math> within-site <math>\kappa=0.72-0.94</math> cross-site for minor/major adversities in childhood/adolescence in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Emotional abuse, physical abuse and witnessing violence were consistently associated with first onsets of emotional disorders across developmental periods</li> <li>• More severe forms of adversity associate with risk for MDD and anxiety disorders over and above minor adversities</li> <li>• Sexual abuse and assault enhance risk for depression and anxiety</li> </ul>	<ul style="list-style-type: none"> <li>• Sum of adversity severity scores and the number of major and minor adversities endorsed as two new summary scoring approaches</li> <li>• Use of new scoring approaches and focus on why childhood and adolescent adversity increases risk for depression and anxiety disorders</li> </ul>	Level III A

<b>Childhood Trauma Questionnaire</b>	Bernstein et al.	Journal of Aggression, Maltreatment & Trauma, 2013	Sticks and stones may break my bones but words relate to adult physiology? Child abuse experience and women's sympathetic nervous system response while self-reporting trauma	Examine the association between self-reported childhood abuse experience and current sympathetic nervous system (SNS) dysregulation in a sample of adult women selected for various risk factors	N=105 pregnant women aged 18 to 38 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.91</math> for emotional abuse subscale, <math>\alpha=0.87</math> for physical abuse subscale, <math>\alpha=0.95</math> for sexual abuse subscale in the current study</li> <li>• Test-retest reliability ICC=0.88 over 2-6 months</li> </ul>	<ul style="list-style-type: none"> <li>• High levels of childhood emotional abuse were associated with disrupted SNS activity in response to the recall of traumatic events</li> <li>• Emotional abuse experiences were associated with a dysregulated failure to habituate to an emotionally stimulating task</li> </ul>	<ul style="list-style-type: none"> <li>• Clinician use of structured trauma questionnaire as a tool for early identification of stress dysregulation and early intervention in cases of childhood emotional abuse</li> <li>• Clinician knowledge of long-term costs of emotional abuse for more vigilance about instances in which caregivers emotionally abuse their children</li> </ul>	Level III A
	Shin et al.	Alcoholism: Clinical and Experimental Research 2016	Identifying sensitive periods for alcohol use: The roles of timing and chronicity of child physical abuse (CPA)	Examine whether timing and chronicity of CPA play a significant role in linking exposure to CPA to alcohol use in young adulthood	N=300 young adults aged 18 to 25 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.88</math> for physical abuse subscale in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Those with chronic CPA had higher levels of monthly drinking frequency and more pathological drinking behaviors than those with no CPA</li> <li>• Persistent PA across childhood and adolescence increased risk for alcohol use disorder in young adulthood</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of timing and chronicity of maltreatment as influence on the course and patterns of alcohol use</li> <li>• Importance of creating time sensitive preventative and treatment interventions for victims of child maltreatment</li> </ul>	Level III A

<b>Childhood Trauma Questionnaire Short Form</b>	Auerbach et al.	Psychiatry Research 2014	Adolescent nonsuicidal self-injury: Examining the role of child abuse, comorbidity, and disinhibition	Examine models including child abuse, psychiatric comorbidity, and disinhibition to test how these factors may work together to lead to nonsuicidal self-injury	N=194 adolescents aged 13 to 18 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.89</math> for the total abuse scale in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Child abuse is associated with greater comorbidity and number of diagnoses which predicts nonsuicidal self-injury frequency</li> <li>• Development of comorbid psychopathology is a consequence of child abuse</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of finding abuse earlier within the developmental course</li> <li>• Carefully assessing the presence of comorbidity and nonsuicidal self-injury</li> <li>• Importance of improving efforts to prevent abuse</li> </ul>	Level III A
	Banducci et al.	Child Abuse & Neglect, 2014	The impact of childhood abuse on inpatient substance users: Specific links with risky sex, aggression, and emotion dysregulation	Aims to disentangle the relationship between types of childhood abuse experienced and maladaptive behavioral and emotional outcomes among substance users in residential substance use treatment, with a focus on exploring the specificity in outcomes	N=280 participants with average age=43.4 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.88</math> for sexual abuse subscale, <math>\alpha=0.86</math> for physical abuse subscale, <math>\alpha=0.96</math> for emotional abuse subscale in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Childhood sexual abuse (CSA) predicted risky sexual behaviors above and beyond childhood physical abuse (CPA) and childhood emotional abuse (CEA)</li> <li>• CPA predicted aggressive behaviors above and beyond CSA and CEA</li> <li>• CEA predicted emotion dysregulation above and beyond CSA and CPA</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of incorporating interventions for trauma into existing treatments for substance users</li> <li>• Consideration of abuse history when intervening on behaviors like aggression, unprotected sex, or emotional distress among substance users</li> </ul>	Level III A

Banducci et al.	Addictive Behaviors, 2014	The relationship between child abuse and negative outcomes among substance users: Psychopathology, health, and comorbidities	Examine the relationships between child abuse, psychiatric disorders, substance dependencies, comorbidities and health problems among individuals in residential substance use treatment	N=280 participants with average age=43.3 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.88</math> for sexual abuse subscale, <math>\alpha=0.86</math> for physical abuse subscale, <math>\alpha=0.96</math> for emotional abuse subscale</li> </ul>	<ul style="list-style-type: none"> <li>• Child abuse experiences associated with elevated rates of comorbid alcohol/ cocaine dependence</li> <li>• Dependence on alcohol, cocaine, cannabis, or opioids were 4.5-9.79 times more likely to have psychiatric disorders if abused as kids</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of assessing for abuse experiences in substance use populations to better understand psychiatric symptoms that might be present</li> <li>• Importance of incorporating interventions for trauma into existing substance use treatments</li> </ul>	Level III B
Bender et al.	Journal of Emotional and Behavioral Disorders, 2014	Trauma among street-involved youth	Expand current understanding of trauma experiences in street-involved youth in three disparate regions of the U.S.	N=145 participants aged 18 to 24 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.75-0.96</math> for each subscale</li> </ul>	<ul style="list-style-type: none"> <li>• Youth most vulnerable to trauma included those inexperienced in the streets, lacking financial or social supports and who spend time with anti-social peers</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of connecting street-based youth to structured housing to decrease harm and danger risk</li> <li>• Need for trauma intervention and victimization prevention programs and trauma-sensitive services for homeless youth</li> </ul>	Level III B
Bruce et al.	Depression and Anxiety, 2013	Childhood maltreatment and response to cognitive behavioral therapy among individuals with social anxiety disorder (SAD)	Test the relationship between childhood maltreatment and cognitive behavioral therapy (CBT) outcomes in patients with SAD	N=68 participants with average age=32.4 years		<ul style="list-style-type: none"> <li>• Histories of emotional abuse and neglect and sexual abuse were associated with greater social anxiety</li> <li>• Emotional abuse and neglect predicted greater disability and lower life satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• No difference in mechanism of action of CBT for those with and without histories of child maltreatment</li> <li>• Exploration of the effectiveness of trauma-specific interventions for SAD patients with histories of emotional abuse, emotional neglect and sexual abuse</li> </ul>	Level I C

Burns et al.	Child Abuse & Neglect, 2012	Deficits in emotion regulation mediate the relationship between childhood abuse and later eating disorder symptoms	Examine the relationship of child maltreatment to both emotion dysregulation and subsequent eating pathology	N=1,301 female students aged 18 to 22 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.93</math> for sexual abuse subscale, <math>\alpha=0.74</math> for physical abuse subscale, <math>\alpha=0.84</math> for emotional abuse subscale in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Emotional abuse was consistently related to eating disorder symptoms</li> <li>• Emotion dysregulation positively associated with eating disorder symptoms</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of assessing for a history of emotional abuse in clinical practice</li> <li>• Trauma interventions that increase adaptive emotion regulation strategies to prevent the development of eating disorder symptoms among child maltreatment survivors</li> </ul>	Level III A
Chesin et al.	Psychopathology, 2015	The interaction between rejection sensitivity and emotional maltreatment in Borderline Personality Disorder (BPD)	Examine the interaction between emotional neglect and abuse (ENA) in the manifestation of co-occurring BPD in a sample of mood-disordered adults	N=85 adults aged 18 to 62 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.87, 0.92, 0.89, 0.95</math> and <math>0.72</math> for emotional abuse, emotional neglect, physical abuse, sexual abuse and physical neglect subscales in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Rejection sensitivity increased the risk of a co-occurring BPD diagnosis at low levels of ENA</li> <li>• Higher levels of ENA predict co-occurring BPD in the context of low rejection sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>• Borderline Personality Disorder resulting from interactions between rejection sensitivity and early childhood adversity</li> </ul>	Level III A
Gowin et al.	Psychopharmacology, 2013	The role of cortisol and psychopathy in the cycle of violence	Examine the risk factors for aggression including psychopathy, impulsiveness and disruptions in the HPA axis in a prospective study	N=67 adults aged 18 to 55 years		<ul style="list-style-type: none"> <li>• Higher levels of psychopathy and abuse/ neglect associated with higher aggression scores</li> <li>• Higher levels of abuse/ neglect associated with lower measures of HPA-axis reactivity</li> </ul>	<ul style="list-style-type: none"> <li>• Abuse and neglect as a risk factor for aggressive behavior</li> <li>• Psychopathic traits as a risk factor in combination with childhood maltreatment for aggressive and violent behavior</li> </ul>	Level I C



Huang et al.	Alcoholism: Clinical and Experimental Research 2012	Impact of multiple types of childhood trauma exposure on risk of psychiatric comorbidity among alcoholic inpatients	Examine the prevalence of single and multiple-type childhood trauma exposure among alcoholic patients undergoing inpatient detoxification treatment	N=196 participants with average age=40.5 years	<ul style="list-style-type: none"> <li>• Emotional abuse was a significant predictor of any mood disorder, MDD, PTSD</li> <li>• Physical abuse predicted suicide attempts</li> <li>• Sexual abuse was a significant predictor of anxiety disorder and PTSD</li> </ul>	<ul style="list-style-type: none"> <li>• Need for greater care in assessing and classifying maltreatment subjects when evaluating alcohol-dependent patients</li> <li>• Reduction of psychiatric sequelae in adulthood with early focus on parenting skills to minimize children's exposure to different forms of trauma</li> </ul>	Level III C
Li et al.	Obesity, 2015	Childhood maltreatment increases the risk for visceral obesity	Determine the associations between childhood maltreatment and its subtypes with different types of body fat mass	N= 75 participants aged 19 to 55 years	<ul style="list-style-type: none"> <li>• Visceral fat mass was significantly greater in the child maltreatment group</li> <li>• Physical abuse was significantly associated with visceral fat mass</li> </ul>	<ul style="list-style-type: none"> <li>• Child maltreatment as a predictor for visceral adiposity</li> <li>• Identification of interventions to prevent and treat visceral obesity</li> </ul>	Level III C
Mac-Donald et al.	Journal of Interpersonal Violence, 2015	A perfect childhood? Clinical correlates of minimization and denial on the Childhood Trauma Questionnaire	Examine the clinical correlates of the MD Scale of the CTQ and provide preliminary evidence regarding its moderation effects	N=200 participants with average age=35 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.82, 0.77, 0.92, 0.90, 0.60, 0.93</math> for emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect subscales and total scores in the current study</li> <li>• MD scores correlated strongly with total CTQ score and several subscales</li> <li>• MD-positive reported lower attachment avoidance, fewer negative affective temperaments and dysfunctional personality characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• No evidence of a moderating effect of the MD Scale on the relationship between CTQ scores and any clinical variables</li> <li>• Support for the common practice of ignoring or discarding the MD Scale of the CTQ</li> </ul>	Level III A

Madigan et al.	Attachment & Human Development, 2012	The reporting of maltreatment experiences during the Adult Attachment Interview (AAI) in pregnant adolescents	Examines maltreatment experiences reported by high-risk pregnant adolescents in response to a slightly adapted version of the Adult Attachment Interview	N=55 females aged 12 to 18 years	<ul style="list-style-type: none"> <li>• Sexual abuse history and general maltreatment were associated with being classified as unresolved in response to the AAI</li> <li>• General maltreatment was significantly correlated with reports of dissociation</li> </ul>	<ul style="list-style-type: none"> <li>• Need for intervention and support resources for parenting adolescents and their children</li> <li>• Consideration of the level of emotional impact imposed on interviewees during discussions of abuse and/or loss in response to the AAI</li> </ul>	Level III C	
Matthews et al.	Brain, Behavior and Immunity, 2014	Child abuse is related to inflammation in mid-life women: Role of obesity	Examine whether childhood abuse predicted elevated levels of C-reactive protein (CRP) and whether the association was due to body size	N=326 women aged 42 to 52 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.80-0.94</math> for the subscales in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Experience of childhood abuse and neglect associated with elevated levels of CRP and inflammation over time (BMI)</li> <li>• History of childhood abuse and neglect associated with elevated risk for multiple chronic inflammatory diseases</li> </ul>	<ul style="list-style-type: none"> <li>• Inflammatory pathways involved in understanding the link between abuse and CVD risk and diabetes</li> <li>• Women with abuse history benefitting from weight reduction and obesity prevention programs in addition to supportive therapy</li> </ul>	Level III A

Min et al.	Child Abuse & Neglect, 2013	Pathways linking childhood maltreatment and adult psychiatric health	Examine whether a self-reported history of childhood maltreatment is related to poor adult physical health through health risk behaviors, adverse life events, and psychological distress	N=279 women aged 31 to 54 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.69</math> for physical neglect subscale, <math>\alpha=0.94</math> for sexual abuse subscale in the current study</li> <li>• Inter-correlation <math>r=0.74</math> between physical abuse and emotional abuse, <math>r=0.52</math> between sexual abuse and emotional abuse in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Childhood maltreatment was related to a likelihood of lifetime drug dependence, more adverse life events, greater psychological distress and poorer perceived physical health</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence for ill health effects of childhood maltreatment persisting into adulthood</li> <li>• Greater awareness among healthcare providers of childhood maltreatment as a potential contributor to health problems for better treatment</li> </ul>	Level III A
Pajer et al.	Canadian Journal of Psychiatry, 2014	Physical child abuse potential in adolescent girls: Associations with psychopathology, maltreatment, and attitudes toward child-bearing	Examine associations between psychosocial and demographic factors and the potential for child abuse in adolescent girls who are not pregnant and not mothers	N=195 adolescent girls aged 15 to 16 years		<ul style="list-style-type: none"> <li>• Child abuse potential associated with conduct disorder, internalizing disorder, negative attitudes toward child-bearing and childhood exposure to maltreatment</li> <li>• Exposure to abuse or neglect puts one at risk for future abusive behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Working with girls with conduct disorder before pregnancy to reduce potential for future abuse</li> <li>• Supplement or change education about child-bearing as an approach to preventing abuse for girls with conduct disorder</li> </ul>	Level III C

Perepletc -hikova et al.	Child Maltreat- ment, 2012	Borderline Personality Disorder features and history of maltreatment in mothers involved with Child Protective Services	Examine the history of childhood maltreatment and Borderline Personality Disorder (BPD) symptoms in mothers whose children were removed from the home by Child Protective Services (CPS)	N=99 mothers with N=41 whose children have been removed from home by CPS with average age=33.7 years and N=58 controls with no CPS involvement with average age- 35.3 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.94</math> for total scale, <math>\alpha=0.64</math> for physical neglect subscale, <math>\alpha=0.87</math> for physical abuse subscale, <math>\alpha=0.86</math> for emotional abuse subscale, <math>\alpha=0.88</math> for emotional neglect subscale, <math>\alpha=0.95</math> for sexual abuse subscale in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• CPS-involved mothers had higher rates of childhood maltreatment relative to control mothers</li> <li>• CPS-involved mothers reported significantly higher rates of childhood maltreatment history than the community controls</li> </ul>	<ul style="list-style-type: none"> <li>• Parents involved with CPS having access to services that address parental emotional and behavioral problems</li> </ul>	Level III A
Powers et al.	Psychia- try: Interper- sonal and Biologic- al Process- es, 2015	Associations between childhood abuse, posttraumatic stress disorder, and implicit emotion regulation deficits: Evidence from a low- income, inner-city population	Determine whether exposure to childhood abuse and PTSD symptoms were related to task accuracy and deficits in implicit emotion regulation in a sample with low income and high rates of trauma	N=67 females aged 18 years and older	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.94</math> in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate to severe childhood abuse exposure showed significantly poorer emotional conflict regulation and poorer accuracy on the emotional conflict task among individuals with high levels of PTSD symptoms</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of an implicit emotion regulation deficit for individuals exposed to childhood abuse</li> <li>• Usefulness of specific treatment focused on emotion regulation done with trauma therapy</li> </ul>	Level III A

Racine & Wildes	International Journal of Eating Disorders, 2015	Emotion dysregulation and Anorexia Nervosa: An exploration of the role of childhood abuse	Consider whether childhood abuse might be related to emotion dysregulation difficulties and eating disorder symptom severity in patients with Anorexia Nervosa (AN)	N=188 participants aged 16 years and older	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.90</math> for emotional abuse subscale, <math>\alpha=0.96</math> for sexual abuse subscale, <math>\alpha=0.83</math> for physical abuse subscale in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Reports of childhood emotional and sexual abuse were significantly correlated with emotion dysregulation and AN symptom severity</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of childhood emotional abuse in emotion dysregulation in individuals with AN</li> <li>• Targeting emotion dysregulation in treatments for AN to reduce the burden associated with perceived or experienced childhood emotional abuse</li> </ul>	Level III A
Schwandt et al.	Alcoholism: Clinical and Experimental Research 2013	Childhood trauma exposure and alcohol dependence severity in adulthood: Mediation by emotional abuse severity and neuroticism	Investigate the prevalence of multiple types of childhood trauma in treatment-seeking alcohol-dependent patients and the associations between childhood trauma and alcohol dependence (AD) severity	N=417 participants with N=280 diagnosed with alcohol dependence and average age=41.4 years and N=137 controls with average age=28.7 years	<ul style="list-style-type: none"> <li>• All types of childhood trauma were highly prevalent in treatment-seeking alcoholics</li> <li>• Alcohol-dependent subjects were more than 10 times as likely to have experienced emotional abuse than control subjects</li> </ul>	<ul style="list-style-type: none"> <li>• Emotional abuse playing a prominent role in the development of alcohol dependency</li> <li>• Treatment for alcoholics with a history of childhood abuse focused on the long-term effects of childhood abuse and resulting psychiatric and psychosocial needs</li> </ul>	Level II C	

Sexton et al.	Journal of Affective Disorders, 2015	The roles of resilience and childhood trauma history: Main and moderating effects on postpartum maternal mental health and functioning	Investigate main and moderating influences of resilience and childhood history of maltreatment on posttraumatic stress disorder (PTSD), major depressive disorder (MDD), parental sense of mastery, and family functioning	N=214 mothers aged 18 and older	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.92</math> in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Lower resilience and greater childhood trauma severity were significantly related to increased rates of postpartum depression</li> <li>• Mothers with low levels of resilience and most severe childhood maltreatment history exceeded PTSD and MDD diagnosis cutoffs</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment of resilience and child maltreatment history prior to childbirth to help identify those at greatest risk for postpartum mental illness</li> <li>• Resilience as a predictive characteristic for mental health symptoms and wellness for mothers with histories of maltreatment</li> </ul>	Level III A
Sheffield et al.	Comprehensive Psychiatry, 2013	Childhood sexual abuse increases risk of auditory hallucinations in psychotic disorders	Compared childhood abuse between psychotic disorder patients and healthy control subjects to assess the relationship between childhood sexual abuse (CSA) and auditory hallucinations (AH)	N=114 participants with average age=35.5 to 37.9 years	<ul style="list-style-type: none"> <li>• Psychotic disorder patients with AH report significantly more severe childhood sexual, physical and emotional abuse than patients with no AH</li> <li>• Experience of sexual abuse confers a greater risk for developing AH than experience of emotional or physical abuse alone</li> </ul>	<ul style="list-style-type: none"> <li>• Clinicians obtaining an abuse history from patients who experience AH</li> <li>• Clinician awareness of the high correlation between childhood sexual, physical and emotional abuse as potential risk factors for experiencing AH</li> </ul>	Level III C	

Sheffield et al.	Schizophrenia Research 2013	Reduced gray matter volume in psychotic disorder patients with a history of childhood sexual abuse	Explore the relationship between childhood abuse, psychosis, and brain volume in individuals with a psychotic disorder and healthy controls	N=86 with N=60 psychotic disorder patients (average age=35.5 years) and N=26 healthy controls (average age=38.2 years)	<ul style="list-style-type: none"> <li>• Psychotic disorder patients reported significantly more childhood abuse than healthy controls</li> <li>• Psychotic patients with sexual abuse history had significantly less gray matter volume than controls</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of exploring environmental risk factors like childhood trauma to better understand individual differences in brain morphology</li> </ul>	Level II C	
Theran & Han	Journal of Aggression, Maltreatment & Trauma, 2013	Authenticity as a mediator of the relation between child maltreatment and negative outcomes for college women	Determine if authenticity in relationships mediated the relation between early childhood maltreatment and negative outcomes	N=257 females with mean age=19.74 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.83-0.90</math> for physical abuse, sexual abuse, emotional abuse and emotional neglect subscales, <math>\alpha=0.66</math> for physical neglect subscale in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Child maltreatment leads to negative outcomes due to low levels of authenticity in relationships</li> <li>• Emotional maltreatment significantly mediated by authenticity in relationships</li> </ul>	<ul style="list-style-type: none"> <li>• Women with negative outcomes from child maltreatment benefiting from intervention in adulthood to cope with their experiences of abuse or neglect</li> </ul>	Level III A
Wells et al.	Cognition and Emotion, 2014	Childhood abuse and vulnerability to depression: Cognitive scars in otherwise healthy young adults	Examine the relationship between self-reported retrospective childhood abuse (CA) and cognitive vulnerability to depression	N=155 students with mean age=18.8 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.83</math> with <math>\alpha=0.71</math> when physical abuse and neglect combined and <math>\alpha=0.93</math> when emotional abuse and neglect combined in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Higher levels of childhood abuse associated with dysfunctional attitudes and negatively biased processing</li> <li>• Childhood abuse associated with increased risk for depression</li> </ul>	<ul style="list-style-type: none"> <li>• Abuse history proving to be an important marker in targeting depression efforts</li> <li>• Childhood abuse history associated with increased vulnerability to depression even in psychologically healthy individuals</li> </ul>	Level III A

	Yoder et al.	Community Mental Health Journal, 2014	Explaining homeless youths' criminal justice interactions: Childhood trauma or surviving life on the streets?	Investigate childhood trauma as a risk factor for arrest or jail among youth seeking services at drop in, shelter and transitional housing	N=202 participants aged 18 to 24 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.86</math></li> </ul>	<ul style="list-style-type: none"> <li>• Exposure to childhood physical abuse associated with arrest and deeper levels of system involvement like jail</li> </ul>	<ul style="list-style-type: none"> <li>• Utilization of a trauma-informed approach in current services for preventing delinquency and enhancing youth functioning</li> <li>• Providing services specifically targeted for symptoms of trauma in community-based care for youth</li> </ul>	Level III A
<b>Conflict Tactics Scale, Parent-Child Version</b>	Freisthler et al.	Child Abuse & Neglect, 2014	The dark side of social support: Understanding the role of social support, drinking behaviors and alcohol outlets for child physical abuse	Examine whether the percentage of perceived social companionship living locally is related to the risk of physical abuse and if it is moderated by alcohol outlet density	N=3,023 parents or legal guardians of children aged 12 years or younger	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.51</math></li> </ul>	<ul style="list-style-type: none"> <li>• All levels of alcohol use used physical abuse significantly more often than lifetime abstainers</li> <li>• Parents reporting depressive symptoms, higher levels of impulsivity and stress used physical abuse significantly more often</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of child physical abuse with any drinking behavior</li> <li>• Importance of examining social networks to understand the influence on parenting behaviors pertaining to child maltreatment</li> </ul>	Level III B
	Freisthler et al.	Child Abuse & Neglect, 2015	Examining the relationship between marijuana use, medical marijuana dispensaries, and abusive and neglectful parenting	Examine relation of current use and physical availability of marijuana to child abuse or neglect by parents	N=3,023 parents or legal guardians of children aged 12 years or younger		<ul style="list-style-type: none"> <li>• Current marijuana use was not related to supervisory neglect</li> <li>• Past year use of marijuana was negatively related to child physical neglect</li> </ul>	<ul style="list-style-type: none"> <li>• No apparent expense of caring for a child's basic needs with current use of marijuana</li> </ul>	Level III C



Freisthler & Gruenewald	Alcoholism: Clinical and Experimental Research 2013	Where the individual meets the ecological: A study of parent drinking patterns, alcohol outlets, and child physical abuse	Examine the degree to which alcohol use in conjunction with different drinking venues affects risks of child physical abuse	N=3,023 parents or legal guardians of children aged 12 years or younger		<ul style="list-style-type: none"> <li>• Higher impulsivity scores related to greater use of physical abuse</li> <li>• Frequency of drinking was positively related to the use of physically abusive parenting practices</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of making arrangements for child care when parents plan to drink due to the increased risk for physical abuse</li> </ul>	Level III C
Freisthler & Wolf	Violence and Victims, 2016	Testing a social mechanism: does alcohol outlet density moderate the relationship between levels of alcohol use and child physical abuse?	Examine whether alcohol outlet density moderates the relationship between parental alcohol use and child physical abuse	N=3,023 parents or legal guardians of children aged 12 years or younger	• Cronbach's $\alpha=0.55$	<ul style="list-style-type: none"> <li>• Negative relationship between bar proportion and child physical abuse</li> <li>• Parents used physical abuse more if heavy drinkers and live among higher proportions of bars</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of role of alcohol outlet densities in the use of child physical abuse</li> </ul>	Level III B
Guterman	Child Abuse & Neglect, 2015	Unintended pregnancy as a predictor of child maltreatment	Examine the intentions of pregnancy as one of the earliest potentially identifiable risk-factors for child maltreatment	N=4,898 couples with average mother age=25.7 years and average father age=28.0 years		<ul style="list-style-type: none"> <li>• Maternal consideration of abortion associated with higher odds of psychological aggression and neglect toward child</li> <li>• Paternal reports of unintended pregnancy predicted increased odds of physical aggression toward child</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of unintended pregnancy as a risk factor for child maltreatment</li> <li>• Child maltreatment prevention efforts beginning with affordable contraceptive and family planning services</li> </ul>	Level III C

Lee et al.	Child Abuse & Neglect, 2012	Parental agreement of reporting parent to child aggression using the Conflicts Tactics Scales	Examine mothers' and fathers' congruency using the Parent-Child Conflict Tactics Scale	N=163 children for whom 2 parents provided data	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.67-0.75</math> for discussion construct scale, <math>\alpha=0.61-0.67</math> for verbal-aggressive construct scale, <math>\alpha=0.63-0.81</math> for hostile-indirect construct scale, <math>\alpha=0.68-0.74</math> for aggression construct scale</li> </ul>	<ul style="list-style-type: none"> <li>• Parents were highly consistent in reports of discipline toward the child</li> <li>• Neither mothers nor fathers systematically over-reported the other parent's use of discipline</li> <li>• Mothers tended to be more reliable in reporting on fathers' behaviors</li> </ul>	<ul style="list-style-type: none"> <li>• Consistency of parent to child violence reports using the CTSPC</li> <li>• CTSPC as a reliable self-report instrument to measure parent to child aggression</li> <li>• CTSPC capturing a better sense of range and variability in discipline toward children by parents than CPS maltreatment records</li> </ul>	Level III A
Price-Wolf	Child Maltreatment, 2015	Social support, collective efficacy, and child physical abuse: Does parent gender matter?	Examine whether the relationship between social support, collective efficacy, and physical abuse differs for mothers and fathers in a general population sample than in child welfare samples	N=3,023 parents or legal guardians aged 18 years or older	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.51</math></li> </ul>	<ul style="list-style-type: none"> <li>• More emotional support was associated with lower frequency of physical abuse</li> <li>• Low companionship support was associated with lower frequency of physical abuse for women and higher frequency of physical abuse for men</li> </ul>	<ul style="list-style-type: none"> <li>• Practitioner identification of supportive relationships in lives of families at risk of abuse or with a history of abuse to assess how those relationships might protect against or increase the risk of physical abuse</li> </ul>	Level III B

<b>Histories of Physical and Sexual Abuse Questionnaire</b>	Muenzen-maier et al.	Journal of Family Violence, 2014	Stressful childhood experiences and clinical outcomes in people with serious mental illness: A gender comparison in a clinical psychiatric sample	Examine the stressful childhood experiences (SCE) including childhood abuse in people with serious mental illness	N=183 participants aged 18 to 65 years	<ul style="list-style-type: none"> <li>• Cohen's <math>\kappa=0.63</math> for physical abuse subscale, <math>\kappa=0.82</math> for sexual abuse subscale</li> <li>• Sensitivity of 75% for physical abuse and 93% for sexual abuse</li> </ul>	<ul style="list-style-type: none"> <li>• Men endorsed higher rates of childhood physical abuse and women endorsed higher rates of childhood sexual abuse</li> <li>• Higher SCE exposure resulted in increased severity of PTSD and dissociative symptoms, risk for self harm and adult re-victimization</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of clinicians assessing stressful childhood experiences in the serious mental illness population</li> <li>• Interventions addressing gender sensitive conceptualizations of victimization experiences in assessment and treatment</li> </ul>	Level III B
	Reiff et al.	Psychological Trauma: Theory, Research Practice, and Policy, 2012	Childhood abuse and the content of adult psychotic symptoms	Compare symptom content in abused and approach by examining parallels in the context of childhood trauma	N=183 participants aged 18 to 65 years	<ul style="list-style-type: none"> <li>• Cohen's <math>\kappa=0.63</math> for physical abuse, <math>\kappa=0.82</math> for sexual abuse</li> <li>• Sensitivity of 75% for physical abuse and 93% for sexual abuse</li> </ul>	<ul style="list-style-type: none"> <li>• More elements likely in hallucinations and delusions content of those who experienced childhood abuse</li> <li>• Nondisclosure was a common theme in descriptions of childhood trauma and psychotic symptoms among abused respondents</li> </ul>	<ul style="list-style-type: none"> <li>• Clinician awareness of certain psychotic symptoms being related to childhood trauma</li> <li>• Importance of assessing childhood trauma and related symptoms in patients diagnosed with psychosis</li> </ul>	Level III B

<b>Juvenile Victimization Questionnaire</b>	Pfeffer	Journal of Policy and Practice in Intellectual Disabilities, 2016	Childhood victimization in a national sample of youth with Autism Spectrum Disorders (ASDs)	Examines the victimization rates of a sample of youths with ASDs and extent of simultaneous occurrence of multiple forms of victimization	N=262 youth aged 5 to 18 years old	<ul style="list-style-type: none"> <li>• Assaults and bullying were the most commonly reported types of victimization</li> <li>• The most common forms of maltreatment reported within the last year included emotional abuse and physical abuse by a known adult</li> </ul>	<ul style="list-style-type: none"> <li>• Need for development of strategies for identifying and treating trauma in children with autism</li> <li>• Teaching children with ASDs to self-advocate and protect themselves from victimization</li> </ul>	Level III A
<b>Lifetime Experiences Questionnaire</b>	Havlicek & Courtney	Child Abuse & Neglect, 2016	Maltreatment histories of aging out foster youth: A comparison of official investigated reports and self-reports of maltreatment prior to and during out-of-home care	Examine the agreement between officially investigated and self-reported maltreatment and describe rates of maltreatment using two sources of information in order to provide a more complete history	N=474 participants aged 17 to 26 years old	<ul style="list-style-type: none"> <li>• Discrepancies in reports results from (1) youth false negatives involving neglect and physical abuse prior to out-of-home care and (2) system false negatives involving sexual and physical abuse prior to out-of-home care and neglect, physical and sexual abuse during out-of-home care</li> </ul>	<ul style="list-style-type: none"> <li>• Large disparities between official investigated and self-reports of maltreatment</li> <li>• Development of better understanding of disagreement between measures to advance capacity to measure victimization more accurately</li> </ul>	Level III C

	Liu et al.	Child Abuse & Neglect, 2012	Number of childhood abuse perpetrators and the occurrence of depressive episodes in adulthood	Examine whether the number of perpetrators for each type of childhood abuse uniquely predicted the number of episodes of depression in adulthood	N=299 participants with N=146 high risk with average age=18.64 years and N=153 low risk with average age=18.95 years	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.85</math> for emotional abuse subscale, <math>\alpha=0.67</math> for physical abuse subscale, <math>\alpha=0.80</math> for sexual abuse subscale in the current study</li> </ul>	<ul style="list-style-type: none"> <li>• Childhood emotional abuse (CEA), childhood physical abuse (CPA) and childhood sexual abuse (CSA) were significantly correlated</li> <li>• Greater numbers of CEA and CSA perpetrators were associated with higher number of depressive episodes in adulthood</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of thorough assessments of abuse experiences in those presenting for treatment</li> <li>• Identification of potential patterns underlying the experience of multi-perpetrator abuse for prevention of future victimization</li> </ul>	Level III A
<b>Lifetime Trauma and Victimization History Interview</b>	Massey & Widom	Journal of Empirical Research on Human Research Ethics, 2013	Reactions to research participation in victims of childhood sexual abuse: A comparison of court-substantiated and retrospectively self-reported cases	Examine reactions to research participation by victims of childhood sexual abuse (CSA) using data from an ongoing study of the long-term consequences of child maltreatment	N=460 participants with N=218 CSA group with average age=40.03 years and N=242 control group with average age=39.50 years	<ul style="list-style-type: none"> <li>• Those with history of CSA were more likely to consider questions too personal than those with no history of CSA</li> <li>• Those with history of CSA were less likely to trust replies would be kept private than those with no history of CSA</li> </ul>	<ul style="list-style-type: none"> <li>• Research participation well tolerated among those with a history of childhood sexual abuse regardless of whether the information is based on official court records or retrospective self-reports</li> </ul>	Level III C	

<b>Maltreatment and Abuse Chronology of Exposure Scale</b>	Shin et al.	Alcoholism: Clinical and Experimental Research 2016	Identifying sensitive periods for alcohol use: The roles of timing and chronicity of child physical abuse (CPA)	Examine whether timing and chronicity of CPA play a significant role in linking exposure to alcohol use in young adulthood	N=300 young adults aged 18 to 25 years	<ul style="list-style-type: none"> <li>• Test-retest reliability <math>r=0.88-0.91</math></li> </ul>	<ul style="list-style-type: none"> <li>• Young adults with chronic CPA had higher levels of monthly drinking frequency and more pathological drinking behaviors than those with no CPA</li> <li>• Persistent PA across childhood and adolescence increased risk for alcohol use disorder in young adulthood</li> </ul>	<ul style="list-style-type: none"> <li>• Importance of timing and chronicity of maltreatment as influence on the course and patterns of alcohol use</li> <li>• Importance of creating time sensitive preventative and treatment interventions for victims of child maltreatment</li> </ul>	Level III B
<b>Multidimensional Neglectful Behavior Scale</b>	Freisthler et al.	Child Abuse & Neglect, 2015	Examining the relationship between marijuana use, medical marijuana dispensaries, and abusive and neglectful parenting	Examine whether and how current marijuana use and the physical availability of marijuana are related to child physical abuse, supervisory neglect, or physical neglect by parents	N=3,023 parents or legal guardians of children aged 12 years or younger	<ul style="list-style-type: none"> <li>• Cronbach's <math>\alpha=0.407-0.618</math> for supervisory neglect subscale, <math>\alpha=0.579</math> for physical neglect subscale</li> </ul>	<ul style="list-style-type: none"> <li>• Current marijuana use was not related to supervisory neglect</li> <li>• Past year use of marijuana was negatively related to child physical neglect</li> </ul>	<ul style="list-style-type: none"> <li>• No apparent expense of caring for a child's basic needs with current use of marijuana</li> </ul>	Level III B

	Freisthler et al.	Alcohol and Alcoholism, 2015	Understanding the role of context-specific drinking in neglectful parenting behaviors	Examine whether or not a dose-response relationship exists in drinking contexts for subtypes of child neglect	N=2,152 parents of children aged 12 years or younger	<ul style="list-style-type: none"> <li>• Drinking frequency related to higher likelihood of supervisory neglect and lower likelihood of physical neglect</li> <li>• Supervisory neglect by drinking more often and physical neglect by drinking greater volumes</li> </ul>	<ul style="list-style-type: none"> <li>• Risk for supervisory and physical neglect as a complex interplay between how often parents go out and where they go out</li> </ul>	Level III C
	Kepple et al.	Child Abuse & Neglect, 2014	Bias in child maltreatment self-reports using interactive voice response (IVR)	Assess the utility of IVR methods with parent self-report of child maltreatment behaviors	N=3,023 parents or legal guardians with children aged 12 years or younger	<ul style="list-style-type: none"> <li>• Respondents with parenting behaviors associated with maltreatment were no more likely to dropout during the IVR survey portion than others</li> </ul>	<ul style="list-style-type: none"> <li>• IVR methods capturing child maltreatment behaviors within the general population minimizing potential bias in self-reporting</li> </ul>	Level III C
<b>Russell Sexual Abuse Interview Schedule</b>	Palo & Gilbert	Journal of Child Sexual Abuse, 2015	The relationship between perceptions of response to disclosure of childhood sexual abuse and later outcomes	Assess whether perceptions of reactions to disclosure are related to psychological and physical outcomes among individuals with a history of child sexual abuse (CSA)	N=178 female students with average age=19.01 years	<ul style="list-style-type: none"> <li>• CSA experience had higher physical symptoms, PTSD and depression scores</li> <li>• The helpfulness/hurtfulness of responses to disclosure was only associated with psychological outcomes among those with CSA</li> </ul>	<ul style="list-style-type: none"> <li>• Need for psychological services being more present and available to CSA survivors</li> <li>• Educating the general public and medical professionals about CSA and its effects and how to help survivors</li> </ul>	Level III C

<b>Trauma History Questionnaire</b>	Stephenson et al.	Child Abuse & Neglect, 2012	Childhood sexual abuse moderates the association between sexual functioning and sexual distress in women	To assess the degree to which a history of childhood sexual abuse (CSA) moderates the association between sexual functioning and sexual distress in women	N=176 women with N=105 with history of CSA with average age=33.71 years and N=71 without history of CSA with average age=32.63 years	<ul style="list-style-type: none"> <li>• Test-retest reliability coefficients 0.54-0.92 over a 2-3 month period</li> </ul>	<ul style="list-style-type: none"> <li>• Women with no CSA exhibited moderate to strong associations between sexual functioning and sexual distress while women with CSA exhibited weak or no relationship between the two</li> </ul>	<ul style="list-style-type: none"> <li>• Differing initial target of treatment for female sexual dysfunction depending on whether there is history of childhood sexual abuse or not</li> </ul>	Level III B
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**Table 2: Maltreatment Subtypes Measured in Each Instrument**

<b>Instrument</b>	<b>Physical Abuse</b>	<b>Sexual Abuse</b>	<b>Emotional Abuse</b>	<b>Neglect</b>
Adverse Childhood Experiences Questionnaire	X	X	X	
Boston Area Community Health Survey	X	X	X	
Brief Betrayal Trauma Survey	X	X	X	
Child Abuse and Trauma Scale	X	X	X	X
Child Abuse Potential Inventory	X			
Child Neglect Questionnaire				X
Childhood Experience of Care and Abuse Questionnaire	X	X		
Childhood Trauma Interview	X	X	X	X
Childhood Trauma Questionnaire	X	X	X	X
Childhood Trauma Questionnaire, Short Form	X	X	X	X
Conflict Tactics Scale, Parent-Child Version	X			
Histories of Physical and Sexual Abuse Questionnaire	X	X		
Juvenile Victimization Questionnaire	X	X	X	X
Lifetime Experiences Questionnaire	X	X	X	X
Lifetime Trauma and Victimization History Interview	X	X		
Maltreatment and Abuse Chronology of Exposure Scale	X	X	X	X
Multidimensional Neglectful Behavior Scale				X
The Russell Sexual Abuse Interview Schedule		X		
Trauma History Questionnaire	X	X		

**Table 3: Characteristics of Instruments from Original Article Sources**

<b>Instrument</b>	<b>Author (Year)</b>	<b>Subscales of Instrument</b>	<b>Number of Items</b>	<b>Time to Administer</b>	<b>Psychometric Properties</b>	<b>Targeted Age Group</b>
<b>Adverse Childhood Experiences Questionnaire</b>	Felitti et al. (1998) <sup>1</sup>	Psychological abuse Physical abuse Sexual abuse Substance abuse Mental illness Mother treated violently Criminal behavior in household	17			Adulthood (18+ years)
<b>Boston Area Community Health Survey</b>	Chiu et al. (2013) <sup>2</sup>	Sexual abuse Physical abuse Emotional abuse	9			Adulthood (18+ years)
<b>Brief Betrayal Trauma Survey</b>	Goldberg & Freyd (2006) <sup>1</sup>	Non-interpersonal events Interpersonal events (including physical, sexual, emotional abuse) Close interpersonal events (including physical, sexual, emotional abuse) Other	14		r=0.48, $\kappa$ =0.35, $\Upsilon$ =0.75, %=82 for childhood events in females r=0.45, $\kappa$ =0.36, $\Upsilon$ =0.77, %=84 for childhood events in males r=0.43, $\kappa$ =0.27, $\Upsilon$ =0.56, %=72 for adulthood events in females r=0.42, $\kappa$ =0.25, $\Upsilon$ =0.59, %=78 for adulthood events in males	Adulthood (18+ years)
<b>Child Abuse and Trauma Scale</b>	Sanders & Becker-Lausen (1995) <sup>1</sup>	Sexual mistreatment Physical mistreatment and punishment Psychological mistreatment	38		Cronbach's $\alpha$ =0.90 with $\alpha$ =0.76 for sexual mistreatment, $\alpha$ =0.63 for physical mistreatment and punishment, $\alpha$ =0.86 for	Adulthood (18+ years)

		Physical or emotional neglect Negative home environment			neglect, $\alpha=0.86$ for negative home environment  $r=0.89$ with $r=0.85$ for sexual mistreatment, $r=0.71$ for physical mistreatment or punishment, $r=0.91$ for neglect, $r=0.91$ for negative home environment	
<b>Child Abuse Potential Inventory</b>	Laulik et al. (2015) <sup>2</sup>	Physical abuse Ego-strength Loneliness Lie Random response Inconsistency	160	12-20 min	Cronbach's $\alpha=0.39-0.97$  Test re-test coefficients= $0.91$ for one day, $0.90$ for one week, $0.83$ for one month, $0.75$ for 3 months	Adulthood (18+ years)
<b>Child Neglect Questionnaire</b>	Stewart et al. (2015) <sup>2</sup>	Physical neglect Emotional neglect Educational neglect Supervision neglect	46	20 min	Cronbach's $\alpha=0.91$ by child, $\alpha=0.86$ by self, $\alpha=0.88$ by spouse for maternal neglect and $\alpha=0.96$ by child, $\alpha=0.92$ by self, $\alpha=0.96$ by spouse for paternal neglect  Intraclass correlation coefficients= $0.27-0.49$	Childhood (10-12 years) and both parents
<b>Childhood Experiences of Care and</b>	Bifulco et al. (1994) <sup>1</sup>	Parental indifference Parental control Antipathy	16*	60 min	Inter-rater agreement $\kappa=0.78$ for parental indifference, $\kappa=0.63$ for	Adulthood (18+ years)

<b>Abuse Questionnaire</b>		Discord in the family Physical abuse Sexual abuse			parental control, $\kappa=0.83$ for antipathy from mother, $\kappa=0.96$ for discord in the home, $\kappa=1.00$ for presence of sexual abuse, $\kappa=0.98$ for relationship to perpetrator, $\kappa=0.82$ for presence of physical abuse	
<b>Childhood Trauma Interview</b>	Fink et al. (1995) <sup>1</sup>	Separations and losses Physical neglect Emotional abuse or assault Physical abuse or assault Witnessing violence Sexual abuse or assault	N/A	20-30 min	Inter-rater correlations=0.73-1.00 in all but two subscales with 79% above 0.80 and 63% above 0.90	Adulthood (18+ years)
<b>Childhood Trauma Questionnaire</b>	Bernstein et al. (2003) <sup>1</sup>	Physical abuse Sexual abuse Emotional abuse Physical neglect Emotional neglect	70	10-15 min		Adulthood (18+ years)
<b>Childhood Trauma Questionnaire, Short Form</b>	Bernstein et al. (2003) <sup>1</sup>	Physical abuse Sexual abuse Emotional abuse Physical neglect Emotional neglect	28	5 min		Adulthood (18+ years)
<b>Conflict Tactics Scale, Parent Child Version</b>	Straus, M. A. (2003) <sup>1</sup>	Nonviolent discipline Psychological aggression Physical assault Weekly discipline (optional) Neglect (optional) Sexual abuse (optional)	22-35 (13 optional items)	10 min	Cronbach's $\alpha=0.70$ for nonviolent discipline, $\alpha=0.60$ for psychological aggression, $\alpha=0.55$ for physical assault  Agreement of 87% for nonviolent discipline, 72%	Parents of children

					for psychological aggression, 47% for physical assault	
<b>Histories of Physical and Sexual Abuse Questionnaire</b>	Meyer et al. (1996) <sup>1</sup>	Childhood physical abuse Childhood sexual abuse	12		Inter-rater agreement $\kappa=0.63$ for physical abuse and $\kappa=0.82$ for sexual abuse  Sensitivity=75% for physical abuse, sensitivity=93% for sexual abuse	Adulthood (18+ years)
<b>Juvenile Victimization Questionnaire</b>	Hamby et al. (2005) <sup>1</sup>	Conventional crime Child maltreatment (including physical abuse, emotional abuse, neglect) Peer and sibling victimization Sexual victimization Witnessing and indirect victimization	34			Childhood/Adolescence (8-17 years)
<b>Lifetime Experiences Questionnaire</b>		Emotional maltreatment* Physical maltreatment* Sexual maltreatment*	92*			Adulthood (18+ years)*
<b>Lifetime Trauma and Victimization History Interview</b>	Widom et al. (2005) <sup>1</sup>	General traumas Physical assault/abuse Sexual assault/abuse Kidnapping/stalking Family/friend murdered or committed suicide Witnessed trauma to	30	20-60 min	Sensitivity 82% and specificity 51.2% for physical assault/abuse subscale; sensitivity 55.2% and specificity 77.6% for sexual assault/abuse subscale	Adulthood (18+ years)*

		someone else Crime victimization				
<b><sup>1</sup>Maltreatment and Abuse Chronology of Exposure Scale</b>	Teicher, & Parigger (2015) <sup>1</sup>	Emotional neglect Non-verbal emotional abuse Parental physical maltreatment Parental verbal abuse Peer emotional abuse Peer physical bullying Physical neglect Sexual abuse Witnessing interparental violence Witnessing violence to siblings	52		Test-retest r=0.625 for emotional neglect, r=0.826 for nonverbal emotional abuse, r=0.874 for parental physical maltreatment, r=-.828 for parental verbal abuse, r=0.749 for peer emotional abuse, r=0.834 for peer physical bullying, r=0.643 for physical neglect, r=0.902 for sexual abuse, r=0.819 for witnessing interparental violence, r=0.741 for witnessing violence to siblings	Adulthood (18+ years)
<b>Multi-dimensional Neglectful Behavior Scale</b>						
<b>The Russell Sexual Abuse Interview Schedule</b>	Russell (1983) <sup>1</sup>	N/A	14	80 min		Adulthood (18+ years)
<b>Trauma History Questionnaire</b>	Green, B. L. (1996) <sup>1</sup>	Crime General disaster/trauma Sexual and physical assault	24	10-15 min		Adulthood (18+ years)

Note: <sup>1</sup>= source is the original article, <sup>2</sup>= source is in the matrix, \*= information was obtained from PsycTests database

## **Chapter 5**

### **Discussion**

#### **Summary**

This systematic review sought to find instruments that measure child maltreatment and to evaluate their potential use in the clinical setting. The review was conducted across three databases to identify articles that utilized various questionnaires, scales, surveys and interviews that measure child maltreatment. Fifty-four different articles were identified and included in the review after 813 other articles were excluded for various reasons. Of the included articles, 19 different instruments were identified that measured types of child maltreatment including physical abuse, sexual abuse, emotional abuse and/or neglect.

Seven of the 19 instruments identified measured all four of the types of child maltreatment. Physical abuse and sexual abuse were the two types most often included in the instrument subscales whereas emotional abuse and neglect were least often included. There were some instruments that measured only one type of maltreatment, which included physical abuse, sexual abuse and neglect but not emotional abuse. Therefore emotional abuse is the child maltreatment type measured the least among these instruments.

#### **Clinical Use**

The goal of this review was to identify which instruments could be implemented into the clinical setting for health care providers to use in practice. In order to potentially utilize these instruments in the clinical setting, adequate reliability or validity was necessary. There were 20 articles in the review that did not report any psychometric properties about the

instruments used. There were also 20 of the 38 articles that reported psychometric properties with the reliability or validity values reported from another study or sample than their own. This shows that there is a lack of credibility in those 40 articles and as a result they should be excluded from being considered for possible implementation in the clinical setting.

Reliability and validity played a substantial factor in the rating of level of evidence for each article in the systematic review. The Johns Hopkins Nursing Evidence-Based Practice Rating Scale was used to rate each article (Newhouse et al., 2005). Levels rated the strength of evidence with Level I for experimental studies or randomized control trials, Level II for quasi-experimental studies or Level III for non-experimental or descriptive studies. Letters rated the quality of evidence with A for high quality, B for good quality and C for low quality. According to the JHNEBP scale, low quality includes “undefined, poorly defined or measures that lack adequate reliability or validity” (Newhouse et al., 2005 p. 1). Therefore, articles that reported reliability or validity values from their current study were rated A quality. Articles that reported psychometric properties that were not from their own study, i.e. from another study or sample, were rated B quality. Finally any article that did not have any reliability or validity values reported was rated C quality. Articles that received a C quality rating should also be excluded from consideration for possible implementation in the clinical setting.

Although the articles in this systematic review were lacking in their reporting of psychometric properties for the instruments that were utilized, it is possible that there are other articles that also utilize these instruments that do report reliability and validity. This review article search was limited to the past five years (2012-2017) so there are likely older articles with more adequate reporting of psychometric properties. Therefore, in terms of drawing conclusions,



instruments should not be entirely ruled out for their non-existent psychometric properties just because the authors of these articles did not report them.

Aside from psychometric properties, in order for health care providers to utilize these instruments in the clinical setting, it is imperative that the instruments are targeted at children and adolescents. The majority of the instruments in this review were targeted at adults to measure experiences of maltreatment that occurred in childhood. These instruments work well in research to study the effects of maltreatment on adult life but due to their retrospective nature, they do not help to identify current or recent victims of child maltreatment. Therefore, fifteen of the instruments in this review can be excluded from being considered for their implementation into the clinical setting.

By process of elimination, there are three instruments remaining that could potentially be beneficial in clinical practice for assistance in identifying child maltreatment. The first instrument is the Juvenile Victimization Questionnaire (Green, 1996), a 34-item instrument with five different subscales. The child maltreatment subscale, which includes physical abuse, emotional abuse and neglect, consists of four items. The sexual victimization subscale consists of seven items. The other subscales measure other types of victimization including conventional crime, peer and sibling victimization and witnessing/indirect victimization. This is an instrument that health care providers could potentially use during appointments with 8-17 year olds to supplement their health history inquiry. Unfortunately, there are no psychometric properties reported on this instrument in the original article or in the article in the matrix that utilized the instrument. Therefore, a more extensive search for other articles that use this instrument should be conducted to try to identify its psychometric properties. If adequate reliability and validity

properties were to be identified, this instrument has great potential to be used by health care providers in clinical appointments to help identify child maltreatment victims.

The second instrument that could potentially be beneficial in clinical practice to assist in identifying child maltreatment is the Conflict Tactics Scale, Parent-Child Version (Straus, 2003). This is a 22-item (plus 13 optional items) instrument with three subscales (plus three optional subscales). According to the original article it only takes 10 minutes to administer the scale and it is targeted for parents of children. Since it is targeted at parents, providers could use this instrument in appointments that children and parents are present together, which is typically the case since children usually go to the doctors with their parents. There is a drawback, however; if adolescents were to come to an appointment without their parent, since the instrument would not be able to be used in that circumstance. Also, although there were psychometric properties reported on this instrument, they were not as strong as what would be desired. The internal consistency values for this instrument in this review vary from study to study but are all less than 0.7 and mostly around 0.5 (Freisthler et al., 2014; Freisthler & Wolf, 2016; Lee et al., 2012; Price & Wolf, 2015). Again, a more extensive search for other articles that also use this instrument should be done to try to find if higher psychometric properties were reported. If stronger reliability and validity properties were identified, this instrument also has great potential to be used by health care providers to help identify parents (or others) that are perpetrators of child maltreatment.

The third and final instrument that could potentially be beneficial in clinical practice to assist in identifying child maltreatment is the Child Neglect Questionnaire (Stewart et al., 2015). This is a 46-item instrument with four different neglect subscales including physical, emotional, educational and supervisory neglect. According to the original article it only takes 20

minutes to administer the questionnaire and it is targeted for children 10-12 years old and their parents. Internal consistency values reported on this instrument are high with  $\alpha=0.91$  by child,  $\alpha=0.86$  by self and  $\alpha=0.88$  by spouse for maternal neglect and  $\alpha=0.96$  by child,  $\alpha=0.92$  by self and  $\alpha=0.96$  by spouse for paternal neglect (Stewart et al., 2015). According to Kline (1993), the Child Neglect Questionnaire shows adequate reliability since all these values are greater than 0.7 and around 0.9. This instrument could be used by providers in appointments with 10-12 year olds and their accompanying parents to better assess for instances of neglect. The only drawback of this instrument is the limited target age range since a provider could have a busy practice and would likely see many patients younger than 10 years old and older than 12 years old. Nevertheless, with its high psychometric properties and short administration time, this instrument also has great potential to be used by health care providers to help identify either victims or perpetrators of child neglect.

In conclusion, there are three instruments that have the potential to be used in the clinical setting to assist health care providers with identifying instances of child maltreatment. The Juvenile Victimization Questionnaire, the Conflict Tactics Scale, Parent-Child Version and the Child Neglect Questionnaire could all be helpful resources for doctors or nurses to use to recognize child abuse or neglect. These instruments could be implemented into the health history inquiry since they are targeted for children or parents of children. The goal of using these instruments is to help recognize cases of maltreatment that are not being easily identified and report them so that fewer children are victims of abuse and neglect.

### **Limitations**

There are limitations of this review that should be noted. As previously stated, the search strategy was conducted with a limitation of only finding articles within the last five years

(2012-2017). This was done to make the number of articles more manageable to analyze for inclusion/exclusion criteria but is a limitation in this study. Secondly, there were a few original articles of instruments that were never found and therefore resulted in missing information in Table 3. Although extensive searching was done and email correspondence was attempted with the creators of the instruments, it was not possible to get all the information for that table. There were also original articles that were found but did not report some information that other original articles did i.e. time it takes to administer the instrument, which also resulted in missing information in the table. In terms of drawing conclusions about what instruments could be implemented into the clinical setting, it would have been helpful to have that missing information.

Another limitation of this review was the lack of psychometric properties reported in the articles in the matrix (Table 1). Not only were there studies that reported properties from studies and samples other than their own, but there were also studies that did not report properties at all. This also creates a problem in drawing conclusions. Articles that do not report reliability or validity of an instrument should not be considered for implementation into the clinical setting due to lack of credibility. In addition to the general lacking reporting of psychometric properties, there was a noticeable lack of reporting validity properties in comparison to reliability properties.

The final limitation of this review was the vast amount of instruments that were targeted at adult rather than child populations. With the goal of this review being to find instruments that health care providers can use in their health history at appointments with children and adolescents, instruments that can be used with children are desired. The results from this review showed that the majority of instruments used to measure child maltreatment use adult

reports of their retrospective experiences of abuse and neglect in childhood. Although the use of those instruments is helpful in research (or adult clinical settings) to examine the effects of child maltreatment later in life, they would not be helpful in the clinical setting since the maltreatment happened in the past.

### **Recommendations**

In light of the limitations discussed, recommendations for future research on instruments that measure child maltreatment can be helpful. First, articles that utilize these instruments need to report more psychometric properties, particularly validity. Without reports of reliability and validity, an instrument should not be considered credible or accurate in its measurements of child maltreatment. Additionally, reports of psychometric properties should always be in the current sample or study otherwise the results of that study should not be considered credible or accurate either. Second, results from this review showed that there was a lack of instruments that assess for child emotional maltreatment. Considering the detrimental effects that emotional maltreatment can have on psychosocial and physical development, it might be helpful to design an instrument that focuses on this type of maltreatment. Third, as stated above, results from this review showed that most of the instruments that measure child maltreatment are currently used on adult populations to assess their experiences retrospectively. It would be beneficial to design instruments that are targeted for children so that they can be used in either the research or clinical setting to assess recent experiences of child abuse and neglect. If such an instrument existed, there could be studies conducted to evaluate the implementation of it into the clinical setting. Two studies have already successfully implemented computer-based screening for depression and suicide and resulted in a majority of the physicians in the primary care clinic using the system (Aalsama et al., 2018; Etter et al., 2018). With a similar screening

system for child maltreatment, similar studies could be done to evaluate the effectiveness of health care providers utilizing it in clinical settings. Ultimately more reports could be made to child protective services and more victims of child maltreatment could get the help they deserve.

## **Appendix A**

### **Search Strategy**

“child abuse” [mesh] OR “child abuse”[tiab] OR “child mistreatment”[tiab] OR “child maltreatment”[tiab] OR “child neglect”[tiab] AND “surveys and questionnaires” [mesh] OR “questionnaires and surveys”[tiab] OR “survey methods”[tiab] OR “survey method”[tiab] OR “survey methodology”[tiab] OR “community surveys”[tiab] OR “community survey”[tiab] OR “repeated rounds of survey”[tiab] OR “questionnaire design”[tiab] OR “questionnaire designs”[tiab] OR “baseline survey”[tiab] OR “baseline surveys”[tiab] OR “respondents”[tiab] OR “respondent”[tiab] OR “randomized response technique”[tiab] OR “randomized response techniques”[tiab] OR “questionnaires”[tiab] OR “questionnaire”[tiab] OR “surveys”[tiab] OR “survey”[tiab] OR “nonrespondents”[tiab] OR “nonrespondent”[tiab] AND “interviews as topic” [mesh] OR “interview”[tiab] OR “interviews”[tiab] OR “interviewers”[tiab] OR “interviewer”[tiab] OR “oral history as topic”[tiab] OR “group interviews”[tiab] OR “group interview”[tiab] OR “telephone interview”[tiab] OR “telephone interviews”[tiab]

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## ACADEMIC VITA

**Megan N. Reid**  
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(814) 360-9411  
438 Brandywine Drive  
State College, PA 16801

### **OBJECTIVE**

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To obtain employment as a Registered Nurse at a pediatric hospital that utilizes my education in nursing to provide quality patient care and facilitate positive outcomes for patients and families.

### **EDUCATION**

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The Pennsylvania State University: University Park, PA  
Bachelor of Science Nursing  
Schreyer Honors College  
Graduation: May 2018  
Dean's List: 6/6 Semesters

### **CLINICAL EXPERIENCE**

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Nursing Capstone, Geisinger Lewistown: Lewistown, PA  
January 2018 – May 2018

- Provision of care to obstetric patients and newborns
- Collaboration with multidisciplinary teams

Nurse Externship, Children's Hospital of Philadelphia: Philadelphia, PA  
May 2017 – July 2017

- Assisted with direct patient care and treatments
- Escorted patients during transfer or transport

### **WORK EXPERIENCE**

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Nurse Tech: Philadelphia, PA  
August 2017 – Present

- Assist with direct patient care and treatments
- Documentation of care, admissions and bedside procedures

Fitness Instructor: University Park, PA  
August 2015 – Present

- Lead and motivate patrons through aerobic group fitness classes
- Possess extensive knowledge of kinesthetic safety and awareness

Child Care Provider: State College, PA  
May 2014 – May 2017

- Cared for children aged 1-10 in four different families
- Skilled in playing games and engaging children in activities

### **HONORS/CERTIFICATIONS**

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Sigma Theta Tau Honors Society  
Phi Eta Sigma Honors Society  
AHA BLS for Health Care Providers  
September 2017 – Present  
August 2015 – Present  
April 2017

### **VOLUNTEER ACTIVITIES**

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Penn State IFC/Panhellenic Dance Marathon

- Overall Chair for Penn State Fitness Instructors  
August 2017 – Present
- Family Relations Chair for Penn State Fitness Instructors  
August 2016 – August 2017

Student Nurse's Association of Pennsylvania

- Active Member  
August 2014 – Present