

**DO NURSE PRACTITIONERS ASSESS YOUNG CHILDREN FOR POST-
TRAUMATIC STRESS DISORDER?**

By

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Translating Evidence into Nursing Practice Project

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Executive Summary

Post-traumatic stress disorder (PTSD) is an anxiety disorder that results from a response to having experienced or witnessed a traumatic event that can include physical or mental abuse; natural or man-made disasters; domestic violence; war or terrorism; and loss or death of a loved one (Pinto & Schub, 2014, p. 1). Children who are ten years old and younger and who are suspected of having PTSD are typically unable to articulate their experiences of fear or helplessness in response to traumatic events that happened in their young lives (Pinto & Schub, 2014, p.1). The question of this prospective, descriptive, exploratory study is whether nurse practitioners are assessing young children ten years old and younger for PTSD and whether these children are referred to specialists for treatment for PTSD.

This study was approved by the Indiana Wesleyan University (IWU) Internal Review Board, which included a cover letter explaining the study. Each participant's privacy was maintained without obtaining any personal or identifying information. The data collection instrument was a 12-question questionnaire that was devised by this researcher and delivered by an online survey service. The survey was launched July 21, 2015 and then re-sent September 19, 2015, to 100 nurse practitioners who were alumni of IWU. The results were collected November 30, 2015, which are currently presented in a descriptive format and include some significant results. Although 42 responses to the 100 surveys were received in the online service, only 29 ($N=29$) studies qualified for inclusion because they needed to be current nurse practitioners that routinely assessed young children. Among the 42 respondents, 27 (93%) did not routinely assess young children for post-traumatic stress disorder (PTSD). The 11 (40.7%) respondents who

answered “No” to the assessment of young children for PTSD did not know the signs and symptoms of PTSD in children ten years old and younger. There were 11 (40.7%) of the respondents that stated “no” because PTSD was not widespread in their area. The remaining 5 (18.5%) of the respondents stated they had a “lack of time” or “other” as the reasons for not assessing young children for PTSD. The descriptive analysis also indicated that 28 (97%) would have referred children suspected of having PTSD for treatment. The data also indicated that only a small percent (7%) of the participants stated they assessed young children for PTSD. Among the limitations to this study were the small number of participants who responded to the online questionnaire; a greater response number would have increased the study's validity. Another limitation was the selection of only IWU alumni nurse practitioners that were sent the online survey. The significance of the findings in the study indicates that many children ten years old and younger are not being assessed for PTSD on a routine basis. Furthermore, very few of the participants neither were aware of nor knew what the signs and symptoms of PTSD were in the children under their care.

Future implications from this current study indicate a need for further research in order to raise awareness about the need for assessment and treatment of post-traumatic stress disorder (PTSD) in young children. An additional implication is that perhaps more young children be routinely assessed for potential PTSD symptomology; furthermore, qualifying children could receive an earlier diagnosis and referral so that proper treatment could begin sooner in their young lives.

The effort of this study was to spotlight whether nurse practitioners are assessing young children for signs and symptoms of post-traumatic stress disorder (PTSD) and

whether proper referral and treatment have occurred. The proper assessment and referral to treatment for children presenting with PTSD would create a greater potential to change the lives of children in need of care. The hope of this researcher is to help many children who have been adversely affected by traumatic events.

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Chapter One: Introduction

Background

Post-traumatic stress disorder (PTSD) is an anxiety disorder that results from a response to having experienced or witnessed a traumatic event. Children under ten years old and who are diagnosed with PTSD are typically unable to verbally articulate having experienced fear or helplessness in response to a traumatic event (Pinto & Schub, 2014). Little is known about the psychological and physiological effects of adverse events in the very young child (Pfefferbaum, Tucker, North, Jeon-Slaughter, & Nitiema, 2014). Pinto and Schub (2014) stressed the importance of early intervention as the key to decreasing adverse symptoms related to PTSD. They also noted that very young children express their symptoms of PTSD differently than older children. Holt, Jenson, and Wentzel-Larson (2014) likewise noted the importance of early assessment of PTSD and how proper referral to treatment such as Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) could be effective in many cases.

Purpose of the Project

SWOT analysis.

Internal Strengths:

- The assessment of children under ten years old for PTSD that would not have been identified prior to the study.
- The providers of care will possibly incorporate assessment of children for PTSD in routine physical assessments of children under ten years old.
- Proper referral of children identified with PTSD so that interventions can be initiated such as (TF-CBT).

Internal Weaknesses:

- Children with PTSD may be overlooked by misdiagnosis.
- Parents or caregiver(s) may give incorrect information to the providers during the assessment of the child.
- Parents or caregiver(s) may disregard or downplay assessment identification of PTSD in the child.
- Financially, parents or caregiver(s) may not be able to pay for services or to provide transportation for a child's treatment for PTSD.
- If parents or caregiver(s) are suffering from PTSD without treatment, then interventions for the child will not be effective.

External opportunities:

- Children identified with PTSD would be referred to proper treatment facilities.
- Children with PTSD will be identified who otherwise would not have been identified.

External threats:

- Parental or caregiver involvement may have negative impact.
- The trauma the child is experiencing may continue.
- The child may not receive the appropriate kind or amount of treatment needed.

Gap Analysis. Strategic objective:

- To present information about assessment of PTSD to providers of care for children under ten years old. Through the application of appropriate assessment

techniques, the children with PTSD could be identified so that proper treatment modalities are initiated. This plan of assessment is exemplified in the Essentials for Doctoral Education for Advanced Nursing Practice (American Association of Colleges of Nursing, 2006). The Essential I: Scientific Underpinnings for Practice. The component of this essential is the patterning of human behavior in interaction with the environment in normal life events and critical life situations. The essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking is also met by conceptualizing a new care delivery modality to facilitate change in assessments of the children who have PTSD.

Current standing:

- Very few current assessment techniques for children under ten years old with PTSD.

Deficiency:

- A need exists for assessment techniques of children less than ten years old with PTSD so that proper treatment can begin.

Action plan:

- Through the proper identification of PTSD and proper referral and treatment modalities, many children will be able to receive professionally astute care. Such identification or screening thus offers each child a potential of decreased long-term effects or even a full recovery from PTSD, which would otherwise not have been possible.

Significance of the Project

The significance of the current study on healthcare is to spotlight how effective the correct treatment can be, as well as the hope that correct assessment and treatment can be offered to children less than ten years old and were exposed to traumatic events such as war, physical or mental abuse, loss of loved ones, tornados, floods, rape, murder, or domestic violence. Additionally, care providers might become better informed about PTSD best practices and how to address the needs of children under ten years old. Furthermore, care providers can learn to identify and apply assessment skills for PTSD within this age group so that proper referral for treatment has the greatest potential to change the lives of children in need of care.

Theoretical Framework

Nursing theory. The praxis theory of suffering was developed by Morse (2000) through the synthesis of many research projects about human suffering. Morse (2000) stated that the praxis theory of suffering links a myriad of patient's emotional states with comforting strategies. While the model is patient led, the nurse responds to a patient's needs for effective interventions. Consequently, the model is dynamic and provides a means by which a nurse can systemically provide comfort (Morse, 2000).

The praxis theory of suffering and the importance of assessment and treatment of children under ten years old with PTSD should work congruently to address behaviors of suffering in children. The age specific assessment of children with PTSD needs to occur so that comforting interventions may begin (Morse, 2000).

Interpersonal theory. Peplau's theory of interpersonal relations in nursing is currently utilized in psychiatric nursing to identify appropriate care strategies for patients

suffering from PTSD as well as other anxiety related disorders (Freely, 1997). Peplau thought that nursing was beneficial when the relationship between a patient and nurse grew as a result of the learning that occurred. Peplau's work has been termed "Psychodynamic nursing." Central to Peplau's theory was the development and use of therapeutic relationships between the nurse and patient (Freely, 1997). Peplau recognized stress created tension; however, stress was also an energy that could be used positively. Thus, nurses could help patients recognize the source of tension and their reactions to it (Freely, 1997). Within this process, nurses could assist patients to deal with the stress in a positive manner (Freely, 1997). Peplau (1992) proposed three phases (orientation, working, and resolution) and six nursing roles in the nurse-patient relationship (stranger, resource, person, teacher, leader, surrogate, and counselor). Peplau (1992) explained the nurse-patient relationship as having a starting point, proceeding through definable phases, and being time limited, having an end point. Peplau (1992) explained the therapeutic nurse-patient relationship was the situation in which patients could accomplish developmental tasks such as learning to trust, learning to collaborate, and practicing healthy communication and behaviors. In this relationship, the nurse used theoretical understandings, and personal attributes to provide opportunities for emotional healing for patients (Kneisl & Trigoboff, 2008, p. 775).

Peplau's (1992) nursing theory that involves interpersonal relations in nursing is relevant to the study of the importance of assessment and treatment of children under ten years old with PTSD. Once the identification of PTSD is confirmed, then proper referral to modalities of treatment may be initiated. Through the interpersonal relationship techniques outlined in Peplau's theory, the identification of PTSD can be achieved. The

nurse-patient relationship creates an environment for observation and communication between the patient and nurse (Peplau, 1992). Such an environment can be conducive for identification of symptoms of PTSD in children.

Change theory. Lewin, a behavioral scientist, outlined a model for change. His force field model included the steps of unfreezing, moving, and refreezing. In his model, change was described as a dynamic force within the organization that moves in opposing directions (Butts & Rich, 2011 p. 357). Lewin viewed change as a dynamic balance of these forces, not an event (Butts & Rich, 2011 p. 357). Lewin viewed unfreezing as the act of destabilizing old behaviors and is a necessity for old behaviors to be unlearned or discarded. Once unfreezing is accomplished, the method for moving forward must be considered. Moving enables individuals to move to more acceptable behaviors (Butts & Rich, 2011 p. 357). Refreezing is the returning to a state of equilibrium (Hellriegel & Slocum, 1976; Sullivan & Decker, 2009).

Lewin's change theory was chosen as appropriate for this current study because working with small children, the steps of unfreezing, moving, and refreezing as a dynamic model best fits this study. The unfreezing, moving, and refreezing can be achieved by the referral and treatment of the child after the diagnosis of PTSD has been identified. The effect of the trauma the child has experienced will be addressed in the unfreezing force, while the moving portion will be addressed in techniques such as CBT. The refreezing force will be addressed in the comforting measures that will return the child to a state of equilibrium in his or her life.

Interprofessional Collaboration

Interprofessional collaboration of the healthcare team and the child with PTSD would include the physician, nurse practitioner, or physician assistant involved the assessment and referral of the child. A proper psychiatric evaluation by a child psychologist or psychiatrist is next. Then a therapist actually performs the interventional techniques with the child. Finally, the social workers who investigate the environment where the child lives are involved with providing resources or referral for services that would assist the child's parents or caregivers to improve living conditions for the child and family. Social services and the healthcare team would also work hand-in-hand to continue needed follow-up as well.

Summary

PTSD is an anxiety disorder that results as a response directly or indirectly to having experienced or witnessed a traumatic event (Pinto & Schub, 2014). Children under ten years old and who have been exposed to trauma need to be assessed for PTSD so that proper referral to treatment modalities can be initiated. Psychotherapy interventions such as a cognitive-behavioral therapy (CBT) for PTSD in young children seem to be effective in many cases (Holt et al., 2014). This translational research project is to educate providers of care for children with PTSD about the importance of assessment and treatment of children under ten years old. Once the children with PTSD have been diagnosed, then they should be referred for proper care and treatment. The hope is that this project may help many children who have been affected by traumatic events.

Chapter Two: Literature Review

Introduction

The purpose of this literature review was to examine available, current literature about post-traumatic stress disorder in children ten years old and younger. Pinto & Schub (2014) described posttraumatic stress disorder (PTSD) as an anxiety disorder that results in response to having directly or indirectly experienced a traumatic event. Younger children with PTSD are typically unable to verbalize how they experience fear or helplessness as a response to a previous traumatic event. Pinto and Schub also stated that children, who are survivors of physical or mental abuse, neglect, kidnapping, school violence, war, terrorism attacks, natural or man-made disasters, automobile accidents, or life-threatening illness/injury, are at risk for PTSD; likewise, so are children who have witnessed harm or death of a loved one by domestic violence, suicide, or murder (2014). This literature review examined and compared several research studies about PTSD in children. Authors of the included articles in this study examined and identified key elements of PTSD assessment in children and the importance and benefit of treatment in children with PTSD.

Pinto and Schub (2014) explained PTSD commonly in young children as a response to a traumatic event. Younger children are typically unable to verbally report having experienced fear or helplessness and mostly, they have lower thresholds for signs and symptoms of PTSD (2014). Pinto and Schub listed some of the criteria utilized to diagnose PTSD in young children who are ten or less years old, which would be the exposure to actual or threatened death, serious injury, sexual abuse, persistent re-experiencing of the event, signs and symptoms of avoidance of stimuli associated with

the event, increased activity, clinically significant distress, or impairment with relationships with parents or caregivers. The signs and symptoms of PTSD usually continue over one month in duration (Pinto & Schub, 2014).

Since the purpose of this literature review was to investigate some of the available research about PTSD in children less than ten years old, an additional attempt was to locate and examine the importance of appropriate assessment of PTSD in these children. Once an assessment of PTSD has been established in these children, proper referral to a treatment center could occur. Thus, this review examined many important studies that supported the importance of early assessment of PTSD in children less than ten years old and the available treatment modalities that are currently available for them.

Current research is needed in order to gain greater insight into the effects of PTSD and obtain a wider understanding of the impact of trauma on child development and psychopathology (Thabet, Abed, & Vostanis, 2004). The complex process of interaction with exposure to trauma, child-related factors as well as environmental factors need to be addressed in the interpretation of the findings in the studies and warrants further investigation (2004).

Meta-Synthesis

Childhood PTSD. Nugent (2012) discussed how childhood trauma can come in the form of sexual, physical, or emotional abuse. Many children may witness violence where they live, play, or go to school. The trauma can be from an injury, a life-threatening illness, war, terrorism, and natural or man-made disasters. The parents or caregivers are a critical component as to how children recover from the trauma (2012).

PTSD and life-threatening illness in children. Graf, Bergstraesser, and Landolt (2013) performed a study to assess PTSD in infants and preschoolers with cancer, which included 48 children in the study, ages eight to forty-eight months. The children were assessed over an average of 15 months after the diagnosis of cancer. The children's mothers were the informants in the study. The results determined that nine children were diagnosed with PTSD, and twenty children (41.7%) were diagnosed with partial PTSD. The study provided evidence for a substantial prevalence of PTSD in young children with cancer and identified important risk factors (2013). A limitation of this study was the small sample size, which reduced the statistical power of the study. The data collected was gleaned from the mothers' perceptions, which could have possibly been misinterpreted from the true perceptions of the children. The findings of the study confirm the need for careful, developmentally sensitive evaluations of PTSD in young pediatric cancer patients and their parents (2013).

PTSD and ASD in children. Jonker and Hamrin (2003) investigated acute stress disorder (ASD) and PTSD in children. Acute distress disorder is characterized by dissociative symptoms, anxiety, arousal, and re-experiencing symptoms. The current criteria for a *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)* (American Psychiatric Association, 2013) diagnosis of ASD includes exposure to a life-threatening event accompanied by intense fear, at least three dissociative symptoms, recurrent experience of trauma, avoidance of reminders of the trauma, significant anxiety, and hyperarousal. The symptoms must cause significant impairment and occur within one month of the trauma (Jonker & Hamrin, 2003).

PTSD is characterized by re-experiencing, avoidance, and hyperarousal symptoms (Jonker & Hamrin, 2003, p. 42). The diagnostic criteria for PTSD in children are the same as adults with some developmental symptomatology that may exist. The DSM-IV-TR describes the following criteria for PTSD; exposure to a life-threatening event accompanied by intense fear, at least one symptom of re-experiencing trauma, at least three symptoms of avoidance and numbing, and at least two symptoms of hyperarousal. The symptoms must persist for more than one month and cause impairment (Jonker & Hamrin, 2003, p. 42).

They (2003) also stated that acute stress disorder and PTSD both have serious implications for physical and mental health as well as the emotional and cognitive development of children. Further studies are needed to examine children of all developmental stages that have been exposed to traumatic events so that clinicians will have evidence-based research about children with PTSD or ASD (Jonker & Hamrin, 2003).

Alisic et al. (2014) discussed rates of posttraumatic stress disorder in trauma-exposed children and adolescents. The aim of the study was to determine the incidence of PTSD in trauma-exposed children and adolescents with well-established diagnostic interviews. Their (2014) literature search identified 72 peer-reviewed articles on 43 independent samples (n=3563). The rate of PTSD was 15.9% (95% CI 11.5-21.5), which varied with the type of trauma and gender of the participants (2014, p.1). The research showed a significant number of children developed PTSD after being exposed to trauma. The limitation of their (2014) study was that their findings failed to identify how much time had passed between the trauma event and its diagnosis, which could seriously flaw

or affect their findings. Lastly, the study did not include participants with cognitive limitations.

PTSD and links to juvenile delinquency. Amatya and Barzman (2012) examined the missing link between juvenile delinquency and pediatric posttraumatic stress disorder. In children, trauma can be defined as the loss of security and welfare that evokes feelings of fear, helplessness, horror, and possibly agitation (Amatya & Barzman, 2012, p. 1). The complexity of the traumatic situation and the degree and nature of parent or caregiver involvement in the trauma, along with the assumption that the strength of the parent-child attachment dynamic is not a threat to the child, will facilitate cognitive and emotional trauma processing for healing (Amatya & Barzman, 2012, p. 3). The study suggested that healing occurs more through the processing of emotions and beliefs in context of the strengthened parent-child bond rather than formal trauma therapy modalities (Amatza & Barzman, 2012, p. 3). The study supported the ideation of traumatic events in childhood may lead to juvenile delinquency tendencies later in adolescence (2012, p. 3). The understanding of the importance of assessment and diagnosis of PTSD, and treatment in the young child may deter tendencies to be a juvenile delinquent. A supportive and healthy parental-child bond will increase the incidence of recovery from PTSD in the child; thus, decreasing incidence of juvenile delinquency or other negative behaviors in the child later in life.

PTSD and road accidents. Stallard, Salter, and Velleman (2004) explored posttraumatic stress disorder following road accidents. Their prospective study was to determine the psychological effects of road traffic accidents. The interest of the study was focused upon whether children involved in road accidents experienced significant

PTSD. The study was performed four weeks post-accident with diagnostic interviews of the children. Among Stallard et al.'s (2004) participants were children, 75 boys, and 83 girls. The age ranges were 7-18 years old. The findings were 20.3% of the children had significant levels of anxiety and 17.7% with possible clinical depression (Stallard et al., 2004, p. 1). The type of accident and severity of the injury and age were not related to the development of PTSD. Stallard et al. indicated that the gender of the child was significant, with the girls more likely to develop PTSD. The limitation of the study was that the children in the 5-12 year age group were over represented in the study. Regardless the limitations, Stallard et al.'s (2004) study has raised awareness of the urgent need to identify symptomatology of PTSD in children so that proper treatment can occur to reduce the effects of traumatic events related to road accidents.

PTSD and natural disasters. Childs et al. (2004) performed a study to understand and describe the experiences of 97 children following Hurricane Floyd near Cape Fear, North Carolina on September 19, 1999. The children were asked open-ended questions and the narrative answers were evaluated by qualitative analysis. The study helped clinicians to understand the importance of gathering children's perspectives to help support children and their families following that traumatic event.

PTSD and war-time stress. Lester et al. (2013) performed a longitudinal evaluation of a family-centered prevention program to enhance family resilience when facing a wartime deployment and reintegration. Their study evaluated the long term impact of the prevention program named, Families Overcoming Under Stress (FOCUS) "which is a family-centered resiliency training program..." (p. 839) that evaluated the effectiveness of prevention "...among highly stressed military children and families"

(Lester, et al., 2013, p. 839). Multilevel data analysis using structural equation modeling was conducted with identified service data from 280 families with 505 children aged 3-17 (Lester et al., 2013, p. 838). Distress was significantly related between the service member parent, civilian parent, and children. The results were improved family functioning by reducing child distress in areas targeted by the FOCUS program. The limitation of the study was the possibility of caregiver parent report bias about the children. This study revealed that programs such as FOCUS can lead to improved longitudinal psychological health outcomes for military children affected by parental deployment (Lester et al., 2013).

PTSD Interventions in Childhood. Mulvihill (2007) performed a literature review in her study to describe nursing interventions with children and their parents to reduce the impact of traumatic events. Her study was an interdisciplinary integrative review of the literature on the impact of health in childhood trauma. The research was summarized for long and short term health status findings. She described the impact of PTSD and interventions to reduce its impact. Her study (2007) also revealed the need for further research and health education. The nature of the trauma is important in determining how trauma produces PTSD and the possibility of causing physical and mental health problems in both the short and the long term. The more intense the trauma and longer-lasting the trauma, then the greater the likelihood of trauma is in producing further health problems in the child. According to Bolger, Patterson, and Kupersmidt (1998) in Mulvihill (2007), if the trauma had been caused by a parent or caregiver, then the greater the likelihood of having produced a health problem such as PTSD could exist. The developmental level and characteristics of the child also play a role. The quality of

the family relationship is important because if the family relationship is positive, the less impact the trauma will have. A child who has been diagnosed with PTSD may need referral to mental health professionals so the proper treatment can be initiated (Mulvihill, 2007).

Stovall-McClough (2004) performed a randomized controlled single blinded study at a metropolitan and suburban outpatient clinic to examine whether trauma focused cognitive behavioral therapy was more effective than child centered therapy for PTSD in sexually abused children. The children in the study were randomized to trauma focused cognitive behavioral therapy (n=114) or child centered therapy (n=115) (p. 1). Treatments were 12 weeks in duration (Stovall-McClough, 2004, p. 1). At the end of 12 weeks, trauma focused cognitive behavioral therapy improved the PTSD symptoms compared to the child centered therapy (p. 1). The trauma focused cognitive behavioral therapy significantly improved symptoms of depression, behavioral problems, shame, credibility, and trust (p. 1). The results of the study confirm the importance of appropriate referral for treatment that is needed for children who have been sexually abused (Stovall-McClough, 2004, p. 1).

Carr (2004) discussed clinical features, epidemiology, and etiology of PTSD. Treatments of children with PTSD who have survived traumatic events were reviewed. The key components to treatment were psycho-education about trauma reactions, sustained exposure to trauma-related cues, and memories until habituation occurs, coping skills training for the children to help them manage anxiety, and parent training to equip parents with the skills to help them facilitate their children's recoveries (2004).

Childhood PTSD and music therapy. Felsenstein (2012) performed a case study about short-term music therapy intervention which was administered to pre-school children after the forced evacuation from their homes. The setting of the case study is the effects of the unilateral Israeli disengagement from the Gaza strip in 2005 and the post-trauma of the evacuees. That case study (2012) was about music therapy for PTSD treatment with very young children and described the methods used to strengthen the coping skills of the preschoolers. In the case of young children (Felsenstein, 2012), the treatment was grounded in the particular stage of cognitive and emotional development wherein that child was living when the disengagement occurred. The therapy included stressing continuity with the past, strengthening their self-esteem, and being able to look forward to the future. Felsenstein emphasized that PTSD requires professional intervention to overcome long-term effects of the disorder in many children (2012). The roots of music therapy were intertwined with the treatment of trauma in his study. Felsenstein (2012) stated traumatic memories can be stimulated through the music therapy, which helped the children to reprocess the traumatic event. By verbally singing out, it enabled stress release in the reprocessing of the traumatic event (2012, p. 3). The music was a sensory stimulant which served to facilitate therapeutic communication especially in young children who had difficulty verbalizing their feelings and frustrations (p. 3). The music was non-imposing and children tended to be less inhibited in their expression in the music (p. 3). The music served as a voice for their trauma to be released from them (p. 3). The aim of the music therapy group intervention was to substitute for the children's absence of verbal expression at their age and give them the tools of non-verbal expression (p. 3). The role of the music therapist was to facilitate the

post-processing of the trauma and to harness the strength of the group in building post-trauma resilience (Felsenstein, 2012, p. 1).

Diagnostic criteria for PTSD in young children. The article by Pinto & Schub (2014) discussed the how younger children with PTSD were typically unable to verbally report experiencing fear or helplessness in response to a traumatic event. The diagnosing of children six years old and younger involves the use of lower thresholds for signs and symptoms (p. 1). Pinto and Schub listed the seven diagnostic criteria for PTSD in children younger than six years of age; they are exposure to actual serious injury, threatened death, or sexual violation; persistent re-experiencing of the event; persistent avoidance of stimuli associated with the event; marked arousal and reactivity; duration of signs and symptoms for more than one month; impairment with relationships with caregivers, or siblings; inability to attribute symptoms to medical conditions or medications (Pinto & Schub, 2014, p. 1). A licensed mental health clinician may administer the Children's Posttraumatic Stress Disorder Inventory or the Clinician-Administered PTSD Scale for Children and Adolescents (CAPS-CA) to measure PTSD signs and symptoms (p. 1). Other instruments may be administered such as Life Events Screening Questionnaire, the Primary Care PTSD Screen, the Impact of Event-Scale-Revised, the Life Stressor Checklist-Revised, the Short Form of the PTSD, and the Childhood Trauma Questionnaire-Short Form (Pinto & Schub, 2014, p. 1).

Summary

In this literature review, the foregoing studies discussed the importance of assessment of children with PTSD who are ten or less years of age. The early assessment and diagnosis of children with PTSD should enable them to be referred to appropriate

treatment centers so that healing can begin. The diagnosis of children in this population, as well as older children, is important so that long-term effects of PTSD will not continue later in their lives.

Chapter Three: Method

Introduction

Post-traumatic stress disorder (PTSD) is an anxiety disorder that results in response to having experienced or witnessed a traumatic event (Pinto & Schub, 2014). Young children, ten or less years of age, and who present with PTSD are typically unable to verbally report having experienced fear or helplessness in response to a traumatic event; consequently, little is known about the psychological and physiological effects of adverse events in the very young child (Pinto & Schub, 2014). Since very young children express their symptoms of PTSD differently than older children, the literature indicates that early intervention is a key to decreasing adverse symptoms related to PTSD. Thus, referral to treatment is an important factor to improve positive outcomes in young children with PTSD (Holt et al., 2014). My current study intends to explore whether healthcare providers actively assess young children for PTSD as well as whether or not the children are being referred for treatment.

Purpose

The purpose of this study was twofold: 1) Did nurse practitioners assess young children for PTSD? 2) Did referral to treatment occur? The healthcare providers in this current study included nurse practitioners (participants) that routinely examined and assessed children ten or less years old. These participants were asked four questions about PTSD. 1) Were they aware of PTSD in children who were ten or less years old? 2) Were they aware of the signs and symptoms of PTSD in young children? 3) Had they ever assessed children in the ten or less years of age population for PTSD? 4) Once they

assessed for PTSD, did they routinely refer those patients for treatment, and if so, to what type facility were they referred?

Setting/Population

Nurse practitioners comprised the participating population assessed in this study. These participants routinely assessed children ten or less years of age and they practiced in various healthcare facilities across the United States.

Inclusion and Exclusion Criteria

Participants who routinely examined children were selected for this study and included facilities that treat young children ten or less years of age; those facilities included emergency rooms, family practice clinics, and pediatric offices. Excluded from this study were examiners such as therapists, psychologists, and educators. An online survey was emailed to a specific selection of nurse practitioners that are alumni from Indiana Wesleyan University (IWU).

Human Subjects Protection/IRB Approval

The IWU Internal Review Board approved this study. The survey was sent with a cover letter that explained the study and described how consent was implied if the participant were to complete the survey. Each participant's privacy was maintained because no personal or identifying information was obtained from the online questionnaire. Since participation was voluntary, participants could withdraw from the study at any time. The data was collected via an Internet survey, which is maintained on a secure, password-protected database. That data will be retained for a minimum of three years and then destroyed.

Benefits and Risks

No direct benefit was provided to participants in this study. Potential risks to participants primarily included the time involved to complete the survey; secondarily, participants might have felt uncomfortable about their lack of knowledge about the subject matter of the survey. The benefit of this study is its contribution to the body of literature; specifically, knowledge about assessment for PTSD in children ten or less years of age who are under the care of nurse practitioners. Another benefit might be raising further research interests in this topic as well as raising awareness in the healthcare community about the importance for assessment of PTSD in children ten or less years old.

Weakness

One weakness in this study is that not all participants (healthcare providers of children ten or less years of age) were accessed. A second weakness is that only some of the providers actually assessed young children on a routine basis. A third weakness was the low number of participants who answered/returned the questionnaire. A larger response would have increased the validity of this study's results. A fourth weakness is that the questionnaire (survey instrument) lacked validation by previous use; a thorough search of the literature failed to locate any survey like the one developed for this study. Lastly, the specific selection of participants from only IWU alumni inherently limited the number of nationally available participants.

Instrument

The data collection instrument was a questionnaire provided through e-mail by an online survey service. This researcher developed the questionnaire listed below.

- Are you a nurse practitioner? (yes/no)
- What is your area of practice? (primary care, urgent care, pediatrics, psychiatry)
- Do you assess children ten years old and under? (yes/no)
- About how many children aged ten years old and under do you see on an average week? (0-5), (6-10), (11-20), (20+).
- Do you routinely assess children under ten years old for post-traumatic stress disorder? (yes/no)
- If no, why not? (Lack of expertise about PTSD in children ten years old and under/ Not widespread in area of practice/ Lack of time).
- Do you know the signs and symptoms of PTSD in children under ten years old? (yes/no)
- What would cause you to assess these children for PTSD? (Known history of abuse or violence, child in foster care, possible neglect, war or terrorism exposure, automobile accident, loss of loved one or family member, natural or man-made disaster, life-threatening illness, witness of suicide or murder)- (check boxes of all that apply).
- If yes, on average, how many children do you suspect have PTSD on a monthly basis? (0-4), (5-10), (11-20), (21+).
- About how many of these young children do you think are being treated for PTSD? (0-4), (5-10), (11-20), (21+).
- Do you refer the children to treatment? (yes/no)
- If yes, what type of treatment do you refer the children to? (mental health/hospital inpatient)

- Do you assess the parent or caregiver for symptoms of PTSD?

The questions were yes/no, multiple choice, and Likert-scale. The online survey was deployed on July 21, 2015 and the results were obtained and analyzed by November 30, 2015.

Variables

Variables in the study are the number of nurse practitioners who routinely assess young children ten or less years of age for PTSD; the number of healthcare providers who refer the children for treatment for PTSD; the number of healthcare providers who participated in the study; the approximate number of children they assessed for PTSD; which symptoms of PTSD did they assess; to what type of treatment and treatment center did they refer the children.

Method of Data Collection

This researcher used Survey Monkey, which is an online survey provider. The online survey provider distributed the survey randomly to the e-mail addresses of IWU alumni healthcare providers in the United States. The results were electronically retrieved from the online service.

Data Analysis

Descriptive statistics and frequency analysis using SPSS v.22 was utilized to determine the results obtained through the online survey. Data was analyzed with descriptive analysis appropriate to the level of measurement. No power analysis was performed on the results obtained in this study.

Budget

This researcher paid for the Survey Monkey service, editing charges, and supplies customarily associated with computer production of a paper.

Summary

This study provided information about PTSD assessment to healthcare providers of children ten or less years old. Once the young child with PTSD has been diagnosed, the proper referral for care and treatment may be initiated. The hope of this project is to help many children who have been adversely affected by traumatic events.

Chapter Four: Implementation

Introduction

Post-traumatic stress disorder (PTSD) is an anxiety disorder that results in response to having experienced or witnessed a traumatic event (Pinto & Schub, 2014). The purpose of this exploratory study was to examine whether nurse practitioners assess children ten years old and younger for PTSD. The study also examined whether referral for treatment has occurred for the children found at risk for having PTSD.

Results

The results of the research are presented in a descriptive format by including tables and charts and is divided into three sections 1) population and study sample, 2) instrumentation, and 3) descriptive findings, and results are summarized at the end. SPSS v22.0 was used for all descriptive analyses. Because of the descriptive nature of this study, research questions and statistical hypotheses are not included.

Significance to Nursing Practice

The primary benefit of this study is its contribution to the body of literature; specifically, knowledge about assessment for PTSD in children ten or less years of age who are under the care of nurse practitioners. A secondary benefit is to raise additional research interest in this topic. The third benefit is to raise awareness in the healthcare community about the importance for providers to assess children ten or less years old regularly for PTSD symptoms.

Project Implementation Strategies

The data collection instrument was a questionnaire provided through e-mail by an online survey service called Survey Monkey. The online survey was e-mailed to a

specific selection of nurse practitioners who are alumni from Indiana Wesleyan University (IWU). The IWU Internal Review Board approved this study (see Appendix A). The study was sent to participants with a cover letter that explained the study (see Appendix B). The cover letter described how consent was implied if the participant were to complete the survey. Each participant's privacy was maintained because no personal or identifying information was obtained from the online questionnaire. Participation in this study was completely voluntary; participants could withdraw from the study at any time.

This researcher designed and developed the questionnaire (see Appendix C). The health care providers in this current study included nurse practitioners (participants) who routinely examined and assessed children ten or less years old. The participants were asked four questions about PTSD, and the remainder of the questions focused on the nurse practitioner's practice.

Population and Study Sample

The population for this study included Indiana Wesleyan University (IWU) alumni who routinely assessed children ten years or less of age. The study sample included a total of $N = 29$ participants. These participants practiced in various healthcare facilities across the United States. Although participation in this study was voluntary, the inclusion criteria for this study required all participants to be nurse practitioners who were employed in a patient care setting where they examined children ten years of age or younger. All participants who were not nurse practitioners, and participants who did not assess children ten years of age or younger were removed from the dataset prior to the descriptive analysis.

Instrumentation

The survey instrument utilized in this study was a researcher developed questionnaire. The questionnaire consisted of 12 descriptive questions that related to whether or not nurse practitioners assessed patients ten years of age or younger for post-traumatic stress disorder (PTSD). A link to the questionnaire through an online survey service was emailed to all participants. Participation in the survey indicated informed consent. Table 1 presents a list of all 12 survey questions.

Table 1

Researcher Developed Survey Questions

Survey Question
1. Are you a nurse practitioner?
2. What is your area of practice?
3. Do you assess children 10 years old and younger?
4. About how many children ages 10 years old and younger do you see on an average week?
5. Do you routinely assess children 10 years old and younger for post-traumatic stress disorder?
6. If your answer in question 5 was “No,” why not?
7. Do you know the signs and symptoms of PTSD in children 10 years old and younger, such as significant distress or impairment in relationship with caregiver, increased or decreased activity, developmental delay or regression in developmental level, intense fear and distress, or avoidance of stimuli?
8. What would cause you to assess the young children 10 years old and younger for PTSD?
9. On average, how many young children do you suspect have PTSD on a monthly basis?
10. If you suspect a child, 10 or less years old, of having symptoms of PTSD, do you refer that child for treatment?
11. If your answer to question 10 was “Yes”, to what type of treatment do you refer the young children?
12. Do you assess the caregiver or parent for symptoms of PTSD?

Note. Survey Question 1 and Survey Question 3 were used to determine inclusion criteria.

Descriptive Findings

Information on the 12 descriptive variables is provided from the findings and are presented in tables and figures. Table 2 presents frequency counts and percentages for all demographic variables of study. Figure 1 and Figure 2 present pie charts representing the survey questions that included open-ended “other” responses. Resulting from the inclusion criteria, all participants were nurse practitioners (100%) who assessed children ten years of age or younger (100%). The majority of participants practice in primary care settings (59%). A lesser percentage of participants practiced in urgent care settings (17%). A smaller number of participants practice in pediatrics (10%) and emergency room settings (10%). Lastly, a very minimal percentage of participants practice psychiatry (3%). While looking at the numbers of children seen per week by the respondents, the data revealed that the percentages of participants who saw children ages ten years old and younger in an average week were almost evenly distributed among the four categories: 0 – 5 children (24%), 6 – 10 children (24%), 11 – 20 children (24%), and 21 or more children (28%). Many participants reported that they did not routinely examine children ten years of age and younger for post-traumatic stress disorder (93%). Of the participants who did not routinely assess children ten years of age and younger for post-traumatic stress disorder, their reasons included: lack of expertise about PTSD in children ten years old and younger (41%), not widespread in area of practice (41%), and lack of time (11%). The remaining participants had other reasons (7%), (see Figure 1).

Although about 66% of participants knew the signs and symptoms of PTSD in children ten years old and younger, such as significant distress or impairment in relationship with caregiver, increased or decreased activity, developmental delay or

regression in developmental level, intense fear and distress, or avoidance of stimuli, only 34% did not know the signs associated with PTSD. More than half of participants indicated that known history of abuse or violence would cause them to assess the young children ten years old and younger for PTSD (55%). All other causes for assessing the young children for PTSD were made up of much smaller percentages (see Table 2). More than three-fourths (76%) of participants had assessed children in their care for PTSD per month and found a range of 0-4 children were possibly PTSD positive. A much smaller percentage of participants (10%) suspected that, on average monthly basis, between 5 and 10 young children they have assessed, may have PTSD. Only a few participants suspected that, on average monthly basis, between 11 and 20 (7%) young children they have assessed have PTSD, or greater than 20 young children (7%) they have assessed may have PTSD. Almost the entire sample of participants stated that if they suspected a child, ten years of age or younger, of having symptoms of PTSD, they would refer that child for treatment (97%). The types of treatments to which the participants referred the young children include: mental health treatment (89%), and some other treatment (11%). None of the participants claimed to refer the children to hospital inpatient treatment (0%). See Figure 2 for details about the treatments categorized as “other.” Upon further review, a determination was made that the small percentage of “other treatment” responses could, in fact, be classified as a type of mental health treatment. These findings suggested that of all participants who referred patients to treatment, all of them referred patients to some type of mental health treatment (100%). The remainder of participants did not respond to this question (3%) because they answered “no” for question 10. When asked the question, “Do you assess the

caregiver or parent for symptoms of PTSD?” a higher percentage of participants reported “yes” (66%), while the remaining percentage of participants reported “no” (34%).

Table 2

Frequency Counts and Percentages for Demographic Variables of Study ($N = 29$)

Survey Question / Response	Freq.	%
Are you a nurse practitioner?		
Yes	29	100.0
No	0	0.0
What is your area of practice?		
Primary care	17	58.6
Urgent care	5	17.2
Pediatrics	3	10.3
Psychiatry	1	3.4
Emergency room	3	10.3
Do you assess children 10 years old and younger?		
Yes	29	100.0
No	0	0.0
About how many children ages 10 years old and younger do you see on an average week?		
0 – 5	7	24.1
6 – 10	7	24.1
11 – 20	7	24.1
21+	8	27.6
Do you routinely assess children 10 years old and younger for post-traumatic stress disorder?		
Yes	2	6.9
No	27	93.1
If your answer in question 5 was “No”, why not?		
Lack of expertise about PTSD in children 10 years old and younger	11	40.7
Not widespread in area of practice	11	40.7
Lack of time	3	11.1
Other	2	7.4
Do you know the signs and symptoms of PTSD in children 10 years old and younger, such as significant distress or impairment in relationship with caregiver, increased or decreased activity, developmental delay or regression in developmental level, intense fear and distress, or avoidance of stimuli?		

Yes	19	65.5
No	10	34.5

Table 2 (cont'd)

Survey Question / Response	Freq.	%
What would cause you to assess the young children 10 years old and younger for PTSD?		
Known history of abuse or violence	16	55.2
Child in foster care	2	6.9
Possible neglect	1	3.4
War or terrorism exposure	1	3.4
Loss of loved one or family member	2	6.9
Natural or man-made disaster	0	0.0
Life-threatening illness	2	6.9
Witness to murder or suicide	3	10.3
Motor vehicle accident	1	3.4
No response	1	3.4
On average, how many young children do you suspect have PTSD on a monthly basis?		
0 – 4	22	75.9
5 – 10	3	10.3
11 – 20	2	6.9
21+	2	6.9
If you suspect a child, 10 or less years old, of having symptoms of PTSD, do you refer that child for treatment?		
Yes	28	96.6
No	1	3.4
If your answer to question 10 was “Yes”, to what type of treatment do you refer the young children?		
Mental health	25	89.3
Hospital inpatient	0	0.0
Other	3	10.7
Do you assess the caregiver or parent for symptoms of PTSD?		
Yes	19	65.5
No	10	34.5

Note. Freq. = Frequency; % = Percentage.

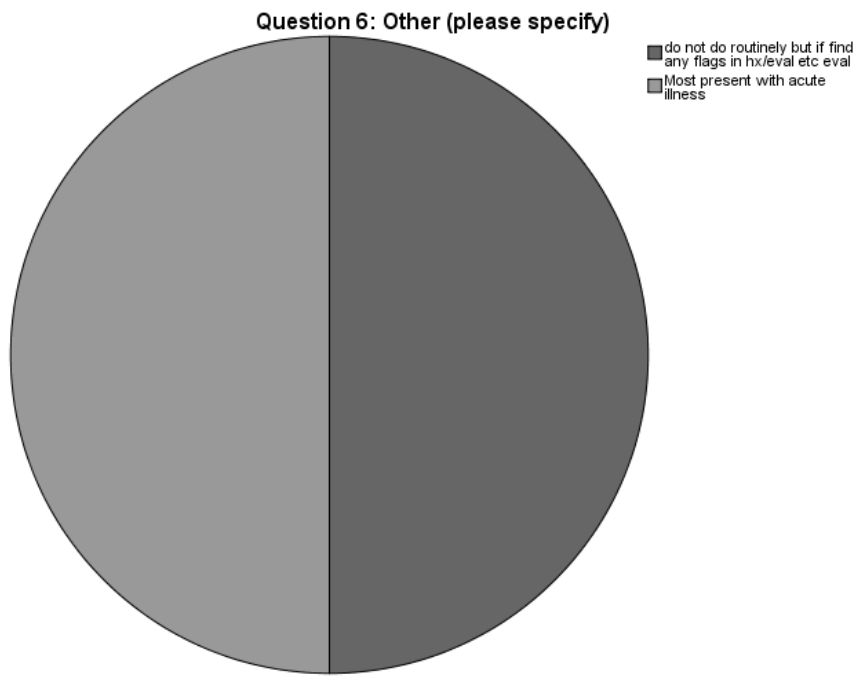


Figure 1. Pie chart representing the specific “other” responses from Question 6 of the researcher designed survey.

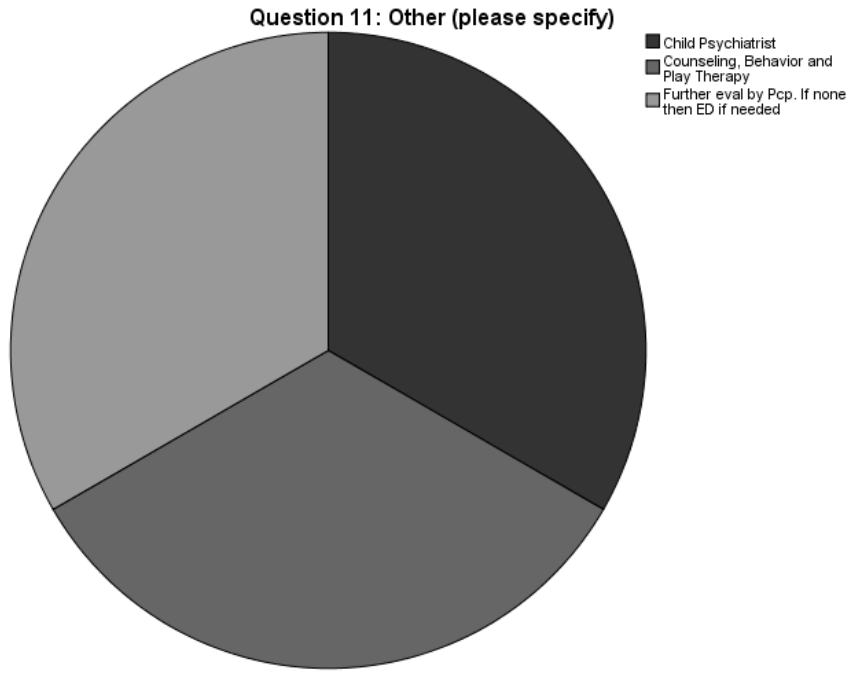


Figure 2. Pie chart representing the specific “other” responses from Question 11 of the researcher designed survey.

Limitations

A limitation of the study was the low number of participants that answered the questionnaire. A larger response would have increased the validity of the study results. Another weakness in the study is that only some of the respondents actually assessed young children (ten years old and younger) for post-traumatic stress disorder (PTSD) on a routine basis. Lastly, selecting only alumni from Indiana Wesleyan University significantly limited the number of available participants.

Summary

Chapter four began with a description of the population and sample of the study, including a list of the researcher developed survey questions. Instrumentation was then discussed and a list of the researcher developed survey questions was presented. Following the population and instrumentation sections, descriptive analyses were performed to investigate the two purposes of this study: to determine whether healthcare providers assessed children ten or less years old for PTSD, and to determine whether referral to treatment occurred.

Part of the inclusion criteria for this study required that all participants assess children ten years of age or younger. However, descriptive analyses indicated that only a very small amount of participants routinely assessed children ten years of age or younger for PTSD (7%). Furthermore, descriptive analyses indicated that the majority of participants referred their patients to some form of treatment (97%). Of the participants that referred their patients to treatment, a large majority referred their patients for mental health treatment (89%), none of the participants referred their patients for hospital inpatient treatment (0%), and a small portion referred their patients to other treatments

(11%). Upon further investigation, a determination was made that the portion of “other” treatments could be considered some form of mental health treatment. These findings suggested that of all participants who referred patients to treatment, all of them referred patients to some type of mental health treatment (100%).

Recommendations

The findings of this research study indicated that only a small portion (7%) of the nurse practitioner respondents routinely assessed children ten years old and younger for post-traumatic stress disorder (PTSD). Furthermore, over one-third of the respondents who answered “no” to whether they assess young children for PTSD did not know the signs and symptoms of PTSD in young children ten years old and younger. The benefit of this pilot study is the contribution to the literature in order to raise further research interest in this topic, as well as raising awareness of the importance of assessment of PTSD in young children is needed in healthcare education and practice.

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Appendix A: IRB Approval

The proposal has been:



Institutional Review Board
4201 South Washington Street
Marion, IN 46953

Tel: 765-677-2090
Fax: 765-677-6647

NOTIFICATION OF APPROVAL TO CONDUCT RESEARCH

NAME OF INVESTIGATOR: Jacqueline Gabbard FNP-BC

TITLE OF INVESTIGATION: Exploratory Study of Assessment of Children
 Ten Years Old and Younger for Post-Traumatic
 Stress Disorder

IRB ID NUMBER: 865.15

The Institutional Review Board of Indiana Wesleyan University reviewed your proposal and has reached the following decision.

The proposal has been:

 X APPROVED

This approval is valid for one year from the date of this notice. If there are any changes in the project during the year or if the project extends beyond the one year period, a new proposal must be submitted to the IRB for review.

 APPROVED PENDING SUBMISSION OF REVISIONS
 (See below)

**ALL REVISIONS MADE MUST BE HIGHLIGHTED UPON
 RESUBMISSION**

 NOT APPROVED (See below)

Comments/modifications required:

Signature: *Kenn Bielen* Ph.D. Date: June 11, 2015

Chair, Institutional Review Board

Appendix B: Cover Letter

Dear fellow Nurse Practitioner,

Hello, my name is Jacqueline Gabbard; I am a doctoral student at Indiana Wesleyan University (IWU). I am the principal investigator in the exploratory study of assessment of children ten years old and younger for PTSD. Post-traumatic stress disorder is an anxiety disorder that results in response to experiencing a traumatic event. Very young children express their symptoms of PTSD differently than older children, and early intervention has been shown to improve positive outcomes for young children. The purpose of this study is to explore whether nurse practitioners assess children ten years old and younger for PTSD, and whether referral to treatment has occurred. The specific aim of this study is to gain information about whether or not practicing NP's are assessing children for PTSD. Based on this information, further research could be developed.

As a nurse practitioner and an alumni from IWU, you are invited to participate in this study if you are currently employed in a patient care setting where you regularly see young children, ten and younger. My initial goal for this study is to obtain 100 FNP subjects; however your participation is entirely voluntary and no penalty exists should you decide not to participate. There is no risk in participating in this study, other than possible discomfort in answering questions about PTSD in children ten years old and younger. By design, this study is totally anonymous; it is not an effort to gain, collect, or distribute email addresses or internet protocol (IP) addresses. The information collected will not be shared with your employers. Your personal privacy is of utmost concern to me; therefore, please refrain from adding any personal identifying information in the

survey answer boxes. All information collected during the survey will come directly to me and will be stored in a secure database for analysis. Once the study is finished, the data will be permanently destroyed.

If you would like to participate, please fill out the questionnaire. Your consent to participate is implied when you fill out the questionnaire. In participating in the survey, you are agreeing that you are cooperating freely in this research project and release claim to the collected data, research results, publication of or commercial use of such information or products resulting from the collected information. You may decide to quit at any time, or not answer a question should it make you feel uncomfortable. If you have any questions or concerns, I may be contacted at jackie.gabbard@myemail.indwes.edu, or 765-238-0230.

My project advisor at IWU is Dr. Kristina Currier DNP, MS, FNP-C. Dr. Currier may be contacted at Kristina.currier@indwes.edu. If you have any concerns about the treatment of the research participants, you can contact the Institutional Review Board (IRB) at Indiana Wesleyan University, 4201 South Washington Street, Marion, IN 46953. (765) 677-2090.

While there is no direct benefit to yourself for participating in the survey, it is hoped that the information obtained will help young children ten years old and under suffering from PTSD in the future.

I HAVE HAD THE OPPORTUNITY TO READ THIS CONSENT FORM, ASK QUESTIONS ABOUT THE RESEARCH PROJECT AND I AM PREPARED TO PARTICIPATE IN THIS STUDY.

Thank you very much for your participation in this study!

Sincerely,

Jacqueline Gabbard FNP-BC

P.O. Box 516

Dublin, IN 47335

765-238-0230

jackie.gabbard@myemail.indwes.edu

Appendix C: Questionnaire

1. Are you a nurse practitioner?

Yes ____

No ____

2. What is your area of practice?

Primary care ____

Urgent care ____

Pediatrics ____

Psychiatry ____

Emergency room ____

3. Do you assess children ten years old and younger?

Yes ____

No ____

4. About how many children ages ten years old and younger do you see on an average week?

(0-5) ____

(6-10) ____

(11-20) ____

(21+) ____

5. Do you routinely assess children ten years old and younger for post-traumatic stress disorder:

Yes ____

No ____

6. If your answer in question 5 was "No," why not?

Lack of expertise about PTSD in children ten years old and younger _____

Not widespread in area of practice _____

Lack of time _____

Other (please specify) _____

7. Do you know the signs and symptoms of PTSD in children ten years old and younger, such as significant distress or impairment in relationship with caregiver, increased or decreased activity, developmental delay or regression in developmental level, intense fear and distress, or avoidance of stimuli?

Yes ____

No ____

8. What would cause you to assess the young children ten years old and younger for PTSD? (Check all that apply)

Known history of abuse of violence _____

Child in foster care _____

Possible neglect _____

War or terrorism exposure _____

Loss of loved one or family member _____

Natural or man-made disaster _____

Life-threatening illness _____

Witness to murder or suicide _____

Motor vehicle accident _____

9. On average, how many young children do you suspect have PTSD on a monthly basis?

(0-4) _____

(5-10) _____

(11-20) _____

(21+) _____

10. Do you refer the young children ten years old and younger which you suspect as having PTSD for treatment?

Yes _____

No _____

11. If your answer to question 10 was "Yes," to what type of treatment do you refer the young children?

Mental health _____

Hospital inpatient _____

Other (please specify) _____

12. Do you assess the caregiver or parent for symptoms of PTSD?

Yes _____

No _____