Posttraumatic Stress Disorder in Children and Adolescents

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Posttraumatic Stress Disorder in Children and Adolescents

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Abstract

Posttraumatic Stress Disorder is often misunderstood with many stigmas associated with the illness itself. Healthcare providers are undereducated on posttraumatic stress disorder, resulting in less than optimal care, and a lack of a holistic approach. The purpose of this research was to identify the knowledge levels of healthcare providers, common misconceptions, and stigmas associated with posttraumatic stress disorder and assess the effectiveness of an educational program regarding posttraumatic stress disorder. The sample used for this research included nine staff whom were employed for a minimum of three months at a residential home for pregnant or parenting young women ages 12-21 in Montana. The participants in the sample were all female, from varying educational backgrounds, positions, and length of employment at the facility. A pre-test of 20 questions regarding general posttraumatic stress disorder information, misconceptions, and stigmas was administered ten minutes before the educational program, and a post-test of the same 20 questions was given immediately following the educational program. The educational program consisted of a PowerPoint and lecture which included information correlating with the questions on the pre-test and post-test. Prior to the educational program, the mean pre-test score was 72%. Following the educational training and administration of the post-test, the mean test score was 83%.
A paired t-test was utilized for statistical significance in this study. A statistical significance was found with three questions; (a) PTSD is estimated to affect 24% of the United States population (p. 0.014), (i) A history of substance abuse increases the risk for PTSD (p. 0.048), and (p) The National Guideline Clearinghouse guidelines for the treatment of posttraumatic stress are directly applicable to childhood posttraumatic stress disorder (p. 0.001). This research affirms that there is a need for further educational interventions to increase healthcare providers' knowledge of posttraumatic stress disorder in order to provide appropriate care.
Acknowledgements

I would like to thank all of the people that have opened up their hearts and worlds to me throughout this thesis. You have truly touched my lives in an unimaginable way, and have changed my lens of the world forever. I would like to thank Professor Kimberly Garrison and Dr. Joy Holloway for their irreplaceable time spent reading, providing input, and editing this thesis. Thank you to Dr. Jennifer Elison for her wonderful insight, contagious passion for nursing, and knowledge into the world of psychiatric care.
Dedication

This thesis is dedicated to my wonderful, vibrant, adventurous son Aziel. No matter how crazy and busy life is, you always remind me of what truly matters in life. You are a beautiful blessing from God.
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Chapter I
Post-traumatic Stress Disorder in
Children and Adolescents

Over five million children in the United States experience a traumatic event every year, with over 40% developing a psychiatric problem such as post-traumatic stress disorder (Perry, 1999).

Post-traumatic stress disorder (PTSD) is a psychiatric disorder that may develop after exposure to a traumatic event "involving a personal experience of threatened death, injury, or threat to physical integrity. It may also include "witnessing such an event happening to another person or learning that a family member or close friend has experienced such an event" (Boyd, 2008, p. 429). Examples of the traumatic events that precipitate PTSD include childhood and adult physical, sexual, or emotional abuse, kidnapping, torture, rape, witnessing a murder, diagnosis of a life-threatening illness, military combat, and surviving a natural disaster (Perry, 1999). The response to the traumatic event is a key component of PTSD, as Boyd (2008) stated, “[T]o meet criteria for a diagnosis of PTSD, the traumatized individual must experience terror, horror, or helplessness in response to the trauma" (p. 429). Diagnostic criteria for posttraumatic stress disorder included symptoms lasting longer than one month (DSM-IV), and the symptoms must cause "clinically significant distress or impairment in social, occupational, or other important areas of functioning" (DSM-IV, p. 468). The symptoms of PTSD fit into the following three criterion categories: “persistent
reexperiencing of the traumatic event, persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness and persistent symptoms of increased arousal" (DSM-IV, p. 463). PTSD is also categorized by the duration of symptoms. Acute PTSD includes symptoms of less than three months, Chronic PTSD has symptoms more than 3 months in duration, and Delayed Onset has symptoms beginning a minimum of 6 months after the traumatic event (DSM-IV).

*Nursing Implications related to PTSD*

The research available on childhood PTSD is limited, and therefore inhibits evidence-based practice when treating this disorder. At best, studies involving adults are the only information we have for developing treatments, and as Tierney (2000) stated, controversies exist for the diagnosis in adults, such as the recent evidence that PTSD is actually a relatively rare disorder with clear biological predisposing factors, also affect the clarity of the diagnosis in children (Yehuda & McFarlane, 1995). Evidence-based training for healthcare providers is needed to provide care for children experiencing this mental illness, as Tierney (2000) concluded, “PTSD in children and adolescents, as it is popularly understood as a conceptual framework, is found to be undergoing a conceptual metamorphosis” (p. 14).

*Health Implications related to PTSD*

The effects of post-traumatic stress disorder caused by physical and sexual abuse on children and adolescents are devastating. Children have a
much more difficult time dealing and coping with trauma, because as Boyd (2008) found, "[Y]oung children may not have developed adequate coping mechanisms to deal with severe stressors" (p. 855). Lowenthal (n.d.) stated that the "psychological effects of abuse and neglect include the deregulation of affect, the avoidance of intimate relationships, provocative behaviors, and disturbances in the attachment process" (p. 366). Increased rates of many psychiatric disorders are associated with PTSD, and include "Major Depressive Disorder, Substance-Related Disorders, Panic Disorder, Agoraphobia, Obsessive-Compulsive Disorder, Generalized Anxiety Disorder, Social Phobia, Specific Phobia, and Bipolar Disorder" (DSM-IV, p. 465).

Risk Factors for PTSD

Risk factors associated with the development of post-traumatic stress disorder in children include how severe the trauma was, how close physically the incident was, and what the parental response was to the event (Hamblen, 1999). Gender, repetition or number of traumatic events, and the type of trauma are also factors that influence the incidence of post traumatic stress disorder (Hamblen, 1999). A predisposition to developing PTSD may also be a risk factor, as Lubit (2008) stated, "Evidence indicates a genetic predisposition for PTSD, suggesting that it may be linked to the individual's temperament and to reactivity of the hypothalamic pituitary axis" (Pathophysiology section, para. 4).
Impact of PTSD on the Individual

Diagnostic criteria for PTSD included four main categories. The first category, A, is in regards to the individual's initial response to the trauma, the causative factor. In order to meet PTSD criteria, the response must be that "the individual experiences intense fear, helplessness, or horror in response" (Lubit, 2008, History section, para. 14). The following categories, B, C, and D, describe symptoms seen upon developing PTSD, and include intrusive recollections involving reexperiencing the trauma, numbing and withdrawal involving avoidance of stimuli, and persistent increased arousal (Lubit, 2008). Various physical effects have been seen in children experiencing PTSD; Lubit (2008) listed physical effects as "increased blood pressure, pulse, muscle tension, and skin resistance" (Impact: Physical Health section, para. 5). There are also long-term effects of PTSD, as The Jordan Institute for Families [JIF] (2005) concluded, "Solomon (2005) found in her research review that PTSD increases a person's risk for serious and chronic disease, including circulatory, digestive, musculoskeletal, endocrine, respiratory, and infectious diseases" (JIF, Impact: Physical Health section, para. 5). Treatments and Medications for PTSD in children often involve psychotherapy, medication, or a combination of both (Lubit, 2008). Medications include Selective serotonin reuptake inhibitors (SSRIs), Beta Blockers, Alpha-adrenergic agonists, and mood stabilizers, with SSRIs being the "medications of choice in managing anxiety, depression, avoidance behavior, and intrusive recollections" (Lubit, 2008, Medication section, para. 1).
Psychosocial Impact of PTSD on the Individual

The psychosocial impact on children experiencing PTSD includes the multiple diagnoses that occur concurrently with this disorder (Jordan Institute for Families, 2005). The various diagnoses that children experience with PTSD include “depression, problems of memory and cognition (APA, 1994; Harney, 2000), anxiety disorders such as separation anxiety and panic disorder, and externalizing disorders such as attention-deficit/hyperactivity disorder, oppositional defiant disorder, and conduct disorder (Hamblen, 1999)” (JIF, 2005, Impact: Multiple Diagnoses section, para. 5).

Impact on Family and Relationships

The symptoms that children with PTSD exhibit negatively affect their behavior and relationships with their families and peers. The Jordan Institute for Families (2005) stated, “Children who have experienced traumas often have relationship problems with peers and family members and problems with acting out. Exposure to trauma, especially community violence, has been linked to aggressive and anti-social behavior” (Impact: Relationships and Behavior section, para. 5). School performance is a significant area affected in children’s lives with PTSD. The symptoms and effects of the disorder negatively impact academic performance, as the Jordan Institute for Families (2005) stated: “Because it contributes to difficulties with behavior, relationships, mental health, attention, concentration, and memory tasks, PTSD has also been linked to school failure (Goodman, 2002)” (as qtd. in JIF, Impact: School Performance)
section, para. 5). Also, as Lubit (2008) concluded, “A major problem associated with PTSD in children is that the anxiety and other problems that develop interfere with a child’s ability to participate in the normal developmental experiences of childhood. The child often finds schoolwork and socializing difficult” (JIF, Treatment: Medical Care section, para. 5).

**Impact of PTSD on Society**

The yearly cost to society due to anxiety disorders has been found to be $42.3 billion dollars (Posttraumatic Stress Disorder Alliance, n.d.). People with PTSD are high users of healthcare, as the Posttraumatic Stress Disorder Alliance (n.d.) concluded, “People with PTSD have among the highest rates of healthcare service use. People with PTSD present with a range of symptoms, the cause of which may be overlooked or undiagnosed as having resulted from past trauma” (Economic Burden section, para. 6).

**Ethical Issues of the Impact of PTSD**

The research available on childhood PTSD is minimal; therefore ethical issues regarding the effectiveness of treatments for PTSD in children arise. Health insurance coverage for mental health illnesses in America is lacking, with state programs paying most of the expense, as Harbage, Gorman, and Shannon (2008) concluded:

In 2001, public programs financed 63 percent of total mental health spending in America, compared to just 45 percent of all health care
spending. Medicaid and other state and local programs together provided 81 percent of that public funding for mental health care. (para. 3)
Chapter II

Review of Literature

The following review completed on October 14, 2009 included evidence-based research of PTSD. The review included tools utilized to diagnose PTSD, a neurobiological rational-based theory of treating PTSD, current guidelines, medical, nursing and interdisciplinary interventions, and the stigmatization related to PTSD.

**PTSD Assessment Tools**

Scales that are used to diagnose PTSD in children and adolescents measure symptoms in the three broad categories that are used to establish a diagnosis in the DSM-IV. These three categories are titled “hyperarousal”, “intrusion and avoidance”, and “numbing” (Boyd, 2008). Examples of these scales are the Clinician-Administered PTSD Scale-Child and Adolescent Version, the Child PTSD Checklist, and the Child PTSD Symptom Scale. Examples of tools that assess the level of severity of PTSD symptoms in children include “structured interviews like the Child Posttraumatic Stress Reaction Index, the Child and Adolescent Trauma Survey, and the Trauma Symptom Checklist for Children...” (Dryden-Edwards, 2007, p. 4). Although not used as a scale to diagnose PTSD, but equally important, the Child Trauma Screening Questionnaire is a tool that is used to assess if a child is prone to develop PTSD after experiencing a traumatic event (Dryden-Edwards, 2007).

The article entitled “Psychometric Properties of Darryl, a Cartoon Based
Measure to Assess Community Violence-Related PTSD in Children” summarizes a research study evaluating the effectiveness of Darryl, a cartoon-based tool used to measure symptoms and screen children and adolescents between the ages of 5-18 years for posttraumatic stress disorder (PTSD) (Geller et al., 2007).

This quantitative study assessed the effectiveness of the Daryl tool by using it to assess 49 children and adolescents at an urban psychiatric outpatient clinic for PTSD in relation to exposure to community violence (Geller et al., 2007). The Darryl tool measures PTSD symptoms based on 34 cartoons, with at least one cartoon associated with each PTSD symptom in the DSM-IV criteria (Geller et al., 2007). When using the tool with a child or adolescent, an interviewer reads a description of Darryl’s feelings shown in the cartoon, and “asks the participant how often he or she has felt like Darryl. Responses include never, some of the time, and a lot of the time, and are coded as 0, 1, or 2 respectively” (Gellar et al., 2007, p. 161). A nursing implication of this study includes a different tool to assess PTSD in children and adolescents which is child-friendly, but only in relation to community violence exposure.

The reliability and validity of the Darryl screening tool was compared to that of the most frequently utilized tool for screening PTSD in childhood and adolescence, which is the CPTSDI-RI (Geller et al., 2007). When correlated with the CPTSD-RI, the Darryl tool had a p value of <0.001, and also had very good sensitivity and specificity (Geller et al., 2007). The overall consistency was listed as “0.90; that of the CPTSD-RI was 0.87” (Geller et al., 2007, p.163). The DSM-
IV criteria for PTSD diagnosis was closely adhered to in the items used within the Darryl tool, demonstrating its content validity (Gellar et al., 2007).

Limitations of this study include the small number of children and adolescents used in the sample, only assessing the tool in relation to PTSD diagnosis after exposure to community violence, and the wide age range assessed over the small sample. As the study reported, “The value of Darryl as a screening tool remains preliminary given the limited number of diagnosed cases of PTSD in the study sample. Full scale efforts at replication are warranted” (Geller et al., 2007, p. 158).

The article entitled “Use of a Psychosocial Screen to Detect Children With Symptoms of Posttraumatic Stress Disorder: An Exploratory Study” summarizes a research study regarding a pediatric symptom checklist tool known as the PSC-17 being used to more specifically identify symptoms of post traumatic stress disorder (PTSD) in children. This study used a quantitative design, and was an exploratory study. One hundred fifty-six children between the ages of 8-10 participated in this study. The sample was a cross-sectional convenience sample, and the children were recruited at a primary care pediatrics practice in New York City.

PTSD screening tools for children are often based on only parental responses. This study compared the difference of having a child answer to when a parent answers a questionnaire, and the effectiveness of identifying PTSD symptoms from those answers (Steinbaum, Chemtob, Boscarino, & Laraque,
2008). The tool used was the PCS-17, which is a pediatric symptom checklist. The symptoms on the PSC-17 checklist are “divided into 3 subscales (internalizing, externalizing, and attention) intended to help the clinician focus his/her assessment on areas of possible dysfunction” (Steinbaum et al., 2008, p. 33).

This study found that “the youth version was much more sensitive than the parent version, identifying approximately double the number of children with symptoms of likely PTSD” (Steinbaum et al., 2008, p. 34). The sensitivity of the “youth version (0.75) was far in excess of the sensitivity of the parent version (0.25). All of the scales had specificities of 0.77 or higher.” (Steinbaum et al., 2008, p. 34).

Potential evidence-based nursing implications that come out of the conclusion of this study involve implementing a child-completed screen for PTSD due to the importance of information directly provided by the child in assessing for symptoms of PTSD. Because this tool is brief and shown to be effective, it seems it would be very useful, especially in a primary care setting.

Limitations of this study are associated with the rather limited sample used. The age range of the children who participated was only ages 8-10 years, the population was of low socioeconomic status from an inner city, and the sample was primarily of minority children. Due to the limited sample, the results “may not be generalized to children of other background or ages” (Steinbaum et al., 2008, p. 35).
The Neurosequential Model of Therapeutics

The neurosequential model of therapeutics (NMT) by Bruce D. Perry is based on a neurobiological rational, with the understanding that our brain mediates various areas relating to day to day functioning in life, and is used as a therapeutic approach in caring for maltreated children (Perry, 2006). There are six key principles with the NMT; the first is that “the brain is organized into a hierarchical fashion; such that all incoming sensory input first enters the lower parts of the brain” (Perry, 2006, p. 30). The second principle is that “neurons and neural systems are designed to change in a use-dependent fashion” (Perry, 2006, p. 34). The third principle is that “the brain develops in a sequential fashion” (Perry, 2006, p. 38). The fourth, that “the brain develops most rapidly in early life” (Perry, 2006, p. 40). The fifth is that the “neural systems can be changed, but some systems are easier to change than others,” and the sixth principle is that “the human brain is designed for a different world” (Perry, 2006, p. 43-4). These principles represent the need for a deeper understanding and biologically mindful approach to treating maltreated children (Perry, 2006). The belief of the NMT theory is that an understanding in regards to “human brain development and functioning provides practical insights into the origins of the abnormal functioning seen following adverse developmental experiences (e.g., abuse, neglect, and trauma), and, furthermore, that an understanding of how neural systems change suggests specific therapeutic interventions” (Perry, 2006, p. 27).
Clinical Application of the NMT in Childhood PTSD

Clinical application of NMT in childhood PTSD includes assessment, specific training of members of the care team, and interventions. Assessment should include determining children's developmental ages, because as Perry (2006) found, "Children in chaotic, neglectful, relationally deprived, and cognitively impoverished environments will have a much slower rate of development in key functional abilities" (p. 48). Not assessing a child's true "ages" can affect therapy and therefore outcomes; as Perry (2006) stated, "[M]isunderstanding of a child's true ages will lead to mismatching expectations and learning/therapeutic activities" (p. 48). Training members of the team that provide care for maltreated children is also important, because in order to utilize the NMT, an understanding of neurodevelopment and early childhood is vital to its use (Perry, 2006). Care and interventions are specific to the child's identified developmental age; as Perry (2006) stated, "[A]ctivities and interventions are selected that match the child's developmental status in a given domain of function (i.e., social, emotional, cognitive, and physical); in other words, they are relevant" (p. 49).

The NMT View of Childhood PTSD

Childhood PTSD along with other psychological disorders with a cause of childhood abuse or maltreatment is viewed in terms of the insight that neurobiology can provide. The NMT view of disorders caused by childhood maltreatment is evident in the purpose of NMT; as Perry (2006) stated, "The
central clinical implication of this model is that successful treatment with traumatized children must first regulate the brainstem's sensitized and dysregulated stress response systems" (p. 50). Because the effect of maltreatment on these systems is exhibited in the occurrence of these disorders, they must first be regulated before therapeutic treatment can occur (Perry, 2006).

*Physiological-Psychological-Sociocultural-Spiritual Dimension*

The focus of NMT in regards to a person's physiological, sociocultural, and spiritual dimension is especially evident in the assessment of a child's developmental "ages." As Perry stated, "we have developed several multi-dimensional assessment processes that help us begin to understand a child's multiple ages (e.g., chronological, emotional, social, cognitive, physical, moral, spiritual)" (p. 48). The four dimensions are acknowledged in this assessment process in NMT.

*Interventions*

The National Guideline Clearinghouse guidelines for the treatment of posttraumatic stress are not directly applicable to childhood posttraumatic stress disorder (PTSD). These guidelines are based on the Veterans Health Administration/Department of Defense practice guidelines for the management of posttraumatic stress, and are directed towards the prevention and treatment of adult PTSD.

Treatment guidelines for PTSD listed include meeting a person’s basic needs, acute symptom management, psychological debriefing, education and
normalization, facilitating social and spiritual support, pharmacotherapy, reassessment, and follow-up (National Guideline Clearinghouse, 2009).

Meeting a person's basic needs includes providing food and water, shelter, clothing, sleep, safety, and protection from ongoing threats or harm. Psychological basic needs also need to be met, such as reducing psychological arousal and protecting the survivor from other harm (National Guideline Clearinghouse, 2009).

Acute symptom management recommendations include assuring the aforementioned basic needs are met, applying psychological interventions to treat symptoms and promote recovery, recognizing individual and cultural differences, and medication treatment for symptoms (National Guideline Clearinghouse, 2009).

Psychological debriefing has an objective of reducing the risk of developing PTSD after a traumatic event, and is obviously geared towards adults (National Guideline Clearinghouse, 2009). This guideline is in no way applicable to children or adolescents with PTSD.

Education and normalization is another guideline with a more adult specific focus, and includes educating survivors on normal reactions to trauma to improve coping, self-care, and increase knowledge of and access to services (National Guideline Clearinghouse, 2009).
Facilitating social and spiritual support involves many aspects of which could be adapted in the treatment of children. These aspects include the following:

Preserve an interpersonal safety zone protecting basic personal space (e.g., privacy, quiet, personal effects). Provide nonintrusive ordinary social contact (e.g., a “sounding board”, judicious use of humor, small talk about current events, silent companionship). Provide opportunities for grieving losses. Provide access to religious/spiritual resources when sought.

(National Guideline Clearinghouse, 2009, p. 8)

Pharmacotherapy guidelines listed are adult specific and focused on the treatment of Acute Stress Disorder, and therefore would not apply to the treatment of childhood or adolescent PTSD (National Guideline Clearinghouse, 2009). Reassessment and follow-up are very important aspects of interventions in treating childhood and adolescent PTSD. Guidelines listed include assessing the response to the treatment implemented (National Guideline Clearinghouse, 2009).

The level and need for follow-up can then be evaluated after the reassessment of the client’s condition. Follow-up guidelines include referral to mental health providers to monitor the individual’s status and treatment. These guidelines from the National Guideline Clearinghouse can be altered to the treatment of children and adolescents; however, they exemplify the need for more specific guidelines directed towards the treatment of pediatric PTSD.
MICROMEDIX (2009) lists many different interventions and treatments for childhood PTSD including cognitive behavioral therapy, eye movement desensitization and reprocessing, relaxation therapy, stress management, and medication therapy. Cognitive behavioral therapy (CBT) is completed with a child’s therapist, and involves the child learning to slowly face the causative situation or object relating to the fear. The therapy can include cognitive restructuring, a technique used to replace the thoughts that bring fear or anxiety with pleasurable thoughts (MICROMEDIX, 2009). Exposure or desensitization can also be included in therapy, which is helping the child face the feared situation and is similar to cognitive restructuring, as its goal is to reduce the child’s fear or anxiety level (MICROMEDIX, 2009).

Treatment of PTSD, when holistically focused, recognizes the importance of the well-being in the physical, emotional, spiritual, and mental dimensions of a person. Traditional medical treatment when combined with alternative medicine can provide additional ways of treating this disorder. Relaxation therapy and stress management are interventions that are used to help the child relax his or her body and mind. These interventions can include deep breathing, music, biofeedback, and meditation, to therefore reach the goal of the child feeling less physical and emotional stress (MICROMEDIX, 2009).

Hamblen (1999) also lists CBT as an effective treatment for children and adolescents with PTSD, and includes additional treatments such as play therapy, Eye Movement Desensitization and Reprocessing (EMDR), and medications.
Play therapy is often used with young children that are unable to deal with the trauma in direct ways, such as those that are used in CBT, and may involve techniques such as coloring or games (Hamblen, 1999). EMDR is a controversial, experimental therapy combining directed eye movements with cognitive therapy. This therapy involves information processing, using an eight step approach to “address the experiential contributors to a wide range of pathologies” (EMDR Institute, 2004). The eight steps consist of a history taking to identify a treatment target for the therapy, ensuring the client has sufficient coping techniques to go through the therapy, and the target identified is processed using EMDR procedures (EMDR Institute, 2004). The procedures used included having the client identify “the most vivid visual image related to the memory (if available), a negative belief about self, related emotions and body sensations. The client also identifies a preferred positive belief” (EMDR Institute, 2004).

Medication therapy for childhood PTSD is used to treat the symptoms of the disorder and may include various types of medication to include anti-depressants, antipsychotics, mood stabilizers, and medications to reduce the physical effects of PTSD. SSRIs have been used as an antidepressant in the treatment of PTSD, and include fluoxetine (Prozac), sertraline (Zoloft), and paroxetine, otherwise known as Paxil (Dryden-Edwards, 2007). This group of medications is the only group that has received approval from the Food and Drug Administration for treating PTSD (Dryden-Edwards, 2007). SSRIs “have been
found to help PTSD sufferers modify information that is taken in from the environment (stimuli) and to decrease fear. Research also shows that this group of medicines tends to decrease anxiety, depression, and panic" (Dryden-Edwards, 2007, p. 5). Antipsychotic medications that are also mood stabilizers are used most effectively in patients that experience symptoms such as hypervigilance, dissociation, and agitation, and may include risperidone, olanzapine, and quetiapine (Dryden-Edwards, 2007). Medications that treat the physical effects of PTSD can include clonidine, guanfacine, and propranolol, which are all antihypertensive medications. Although the various medications listed have been prescribed to assist in the treatment of PTSD in adults, there is too little research to prove the effectiveness of the drugs used to treat this disorder in childhood PTSD (Hamblen, 1999). Other important pediatric interventions also include the following:

Assist children to understand and to integrate the experience in accordance with their developmental stage. Assist them to describe the experience and to express feelings (e.g., fear, guilt, rape) in safe, supportive places, such as play therapy sessions. Provide accurate information and explanations in terms child can understand. Evaluate risk for suicide, especially in male adolescents. Provide family counseling to promote understanding of the child's needs. (Carpenito-Moyet, 2008, p. 474)
Self-help techniques are also an important aspect to view in terms of diet, activity, and environment for people experiencing PTSD. By eating healthy foods, participating in daily exercise, and getting enough sleep, stress and anxiety levels may be decreased, and the symptoms of this disorder may be easier to cope with (Dombeck, n.d.). In addition, diet is also an important factor if a client with PTSD is taking a monoamine oxidase inhibitor (MAOI) for medication treatment, as the diet is very strict. Patients may be taking an MAOI if they have not had a positive therapeutic response to SSRI's as an anti-depressant. During therapy with MAOIs, any foods with the pressor amine, Tyramine, are strictly prohibited, as they can put the individual into a hypertensive crisis, which can ultimately lead to a stroke or heart attack (Dombeck, n.d.).

Scharer, a qualitative researcher, published a study using grounded theory methodology, titled, “Nurse-Parent Relationship Building in Child Psychiatric Units.” Relationships between nursing staff and the parents of children admitted to a psychiatric unit were explored using extensive interviews to collect data about their relationships. The specific aim of this research study was to describe comparisons and contrasts between the parents' views of the relationship and the nursing staff's perception of said relationship, important points in the relationships, and also certain behaviors that influenced the relationship. The findings of this study were that “the parents and nurses reported two phases in their relationships and four patterns of interaction occurring in
these relationships" (Scharer, 1999, p. 155). The two phases of the relationship found were the admission phase and the working phase (Scharer, 1999).

The admission phase was identified as 48-72 hours in length, and included information gathering by both the parents and the nurse (Scharer, 1999). During this phase, the nurse would be gathering information about the child’s admission, problems, family dynamics; the parents would be gathering information about the facility, staff, and routine of care (Scharer, 1999). The task of the working phase was identified as the parents and nurses working to “develop a relationship that allowed them to work together to understand the child’s problems and develop techniques for managing any problem behaviors the child displayed” (Scharer, 1999, p. 158).

The four patterns of interaction that were found to occur in the developing of relationships between parents and nursing staff were titled engagement, disengagement, failure to engage, and a working alliance (Scharer, 1999). Engagement involved a process of “the parent and the nurse becoming involved and emotionally connected with each other” (Scharer, 1999, p. 158). Disengagement as a pattern of interaction would occur “when there was some event that caused disruption in the relationship between parent and nurse” (Scharer, 1999, p. 161). This event could have been either deliberate or circumstantial, with examples being an illness of the nurse or parent, a nurse’s vacation, an emotional upset between the nurse and parent, or various other events that would cause a disruption in the relationship (Scharer, 1999). Failure
to engage as a pattern was found to occur when “either the parent or the staff was unable to sustain interactions, which prevented engagement” (Scharer, 1999, p. 162). The inability to sustain interactions for either party involved either “factors that limited physical presence and/or a distancing attitude of either party. Parents and staff sometimes rejected each other or found it impossible to work together” (Scharer, 1999, p. 162). A working alliance developed “from engagement when there was an extended duration to the relationship or an unusual intensity in a positive relationship” (Scharer, 1999, p. 163). An extended duration to the relationship occurred when a child’s hospitalization was prolonged or the child was readmitted to the unit (Scharer, 1999). Unusual intensity within the relationship occurred when a parent spent an increased number of hours with a particular staff member in order to be more involved in the child’s treatment, and also when the nurse had a positive influence on the relationship (Scharer, 1999). Three additional characteristics were found in working alliance relationships, including “a sense of mutuality in the relationship; a strong, positive attachment to the child; and a willingness of both nurse and parent to extend themselves beyond what is expected” (Scharer, 1999, p. 163).

Clinical implications of this study include recognition of the importance of the various phases of relationship building, and how they affect clinical outcomes (Scharer, 1999). The various phases found in this study to be critical to building relationships with parents are useful for nursing staff in psychiatric clinical settings, and indicates a need for further research in this area. The information
provided by this study gives more insight into the positive and negative
influences on the various phases found. Limitations of this study include limited
relationships studied, with only one working phase relationship analyzed, and this
study was completed on a child psychiatric inpatient unit, with no other setting
observed. This literature review provides evidence that there is a need for further
research and education in regards to posttraumatic stress disorder in children
and adolescents.
CHAPTER III.

Methodology

The purpose of this research study was to develop an evidence-based educational program on PTSD for staff at a therapeutic residential home for pregnant and parenting young women ages 12-21. The Iowa Model of Evidence-Based Practice was utilized during this research study to develop and implement an evidence-based educational program.

Iowa Model of Evidence-Based Practice

The Iowa Model of Evidence-Based Practice was developed to promote the use of evidence-based practice within nursing in health care agencies (Burns & Grove, 2009). This model is based on problem focused and knowledge focused triggers for change in a health care setting, and states that “In a health care agency, there are triggers that initiate the need for change, and the focus should always be to make changes based on best evidence” (Burns & Grove, 2009, p. 626). Problem focused triggers “evolve from risk management data, process improvement data, benchmarking data, financial data, and clinical problems” (Burns & Grove, 2009, p. 626). Knowledge focused triggers can be related to “new research findings, changes in national agencies or organizational standards and guidelines, an expanded philosophy of care, or questions from the institutional standards committee” (Burns & Grove, 2009, p. 626). When applying the Iowa Model of Evidence-Based practice, research evidence is gathered,
appraised for merit and relevance, and synthesized to be used in a clinical setting (Burns & Grove, 2009).

**Educational Intervention**

An evidence-based educational program for PTSD was developed using the Iowa Model of Evidence-Based Practice to maintain the rigor of the project. The educational program was approximately two hours in duration and included the following information: (a) etiology of PTSD, (b) interventions and treatments, and (c) stigmatization associated with PTSD.

**Sample and Setting**

This research project included a convenience sample of nine staff members employed at a therapeutic residential home for pregnant and parenting women ages 12-21. Participants included in the sample were English-speaking and able to read at a 6th grade level. Participants were all female, employed for a minimum time period of 3 months, and from various educational backgrounds and positions within the home.

**Data Collection**

The Clinical Director of the residential home was contacted regarding this project, and the educational program and evaluation was approved by administration. The educational program was integrated into the residential home monthly clinical training program for staff that had been previously established. Participation was voluntary and an informed consent was signed by participants. A pre-test of 20 questions regarding general posttraumatic stress disorder
information, misconceptions, and stigmas was administered ten minutes before the educational program, and a post-test of the same 20 questions was given immediately following the educational program. The evidence-based educational program consisted of a Power-point and lecture which included information correlating with the questions on the pre-test and post-test. Gender, level of education, and level of employment position were included in the data collection.

**Confidentiality**

No identifiable data was collected or used in this research study. The Institutional Review Board designated this study exempt from additional IRB review, due to its purpose is to implement an educational/teaching strategy and evaluate its effectiveness, the participants are anonymous, and sensitive personal and/or medical data is not collected from the participants. All information was stored in a locked filing cabinet, and was destroyed following completion of data analysis.

**Data Analysis**

The data analysis consisted of a pre-test and post-test, and evaluated participant answers and the differences before an evidence-based training, and after an evidenced-based training. Data analysis was set to show if there was a difference between knowledge levels before an educational program on PTSD as compared to after. The pre-test and post-test included True-False answers regarding information about PTSD and its stigmas and stereotypes. Nine participants in the educational program were included in the data and were from
varying educational backgrounds and length of employment at the facility. A paired t-test was utilized with a p-value of 0.05. The percentages for pre and post test scores were calculated using descriptive statistics.

Limitations

Limitations to this study included a small and specific sample size. The participants were all staff at a therapeutic residential home for pregnant and parenting women in a rural area, therefore the sample was from a specific population, and the findings may not compare to other settings. Five participants' data were not included in this research. Reasons for lack of inclusion were as follows: the participants did not attend the entire training, or did not meet the length of employment listed on the informed consent for the research study.
Chapter IV

Results

The purpose of this research study was to identify healthcare providers' knowledge level of posttraumatic stress disorder in children and adolescents and assess the effectiveness of an evidence-based educational program.

Prior to the educational program, the mean pre-test score was 72%.

Following the educational training and administration of the post-test, the mean test score was 83%. See table 1 for pre-test and post test scores.

Table 1.0 Pre-test and Post-test Results

<table>
<thead>
<tr>
<th>Participant</th>
<th>Education</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Masters Degree</td>
<td>0.75</td>
<td>0.95</td>
</tr>
<tr>
<td>2</td>
<td>Bachelor's Degree</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>3</td>
<td>Masters Degree</td>
<td>0.75</td>
<td>0.85</td>
</tr>
<tr>
<td>4</td>
<td>Masters Degree</td>
<td>0.65</td>
<td>0.75</td>
</tr>
<tr>
<td>5</td>
<td>Bachelor's Degree</td>
<td>0.7</td>
<td>0.95</td>
</tr>
<tr>
<td>6</td>
<td>Bachelor's Degree</td>
<td>0.75</td>
<td>0.8</td>
</tr>
<tr>
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<td></td>
<td>0.9</td>
</tr>
<tr>
<td>8</td>
<td>Diploma</td>
<td>0.65</td>
<td>0.6</td>
</tr>
<tr>
<td>9</td>
<td>Masters Degree</td>
<td>0.85</td>
<td>0.85</td>
</tr>
</tbody>
</table>

A paired t-test was utilized for statistical significance in this study. A statistical significance was found with three questions: (a) PTSD is estimated to affect 24% of the United States population (p = .014), (b) A history of substance abuse increases the risk for PTSD (p = .048), and (c) The National Guideline Clearinghouse guidelines for the treatment of posttraumatic stress are directly applicable to childhood posttraumatic stress disorder (p = .001).
There were questions in the pre-test and post-tests regarding general stigmatizations or misconceptions of individuals with posttraumatic stress disorder, which included the following: (a) People with PTSD exhibit increased violent behavior; (b) Depression is always present in individuals diagnosed with PTSD; (c) If someone with PTSD tried hard enough, they would be able to move past the trauma. In response to question (a) People with PTSD exhibit increased violent behavior, five participants believed this statement to be true prior to the educational training, and three believed it to be true following the training. In other words, 56% believed the statement to be true prior to the educational training, and this percentage lowered to 33% following the training. In response to question (b) Depression is always present in individuals diagnosed with PTSD; answers remained unchanged when comparing pre and post test responses: eight of the nine participants believed the statement to be false. The responses to the question, If someone with PTSD tried hard enough, they would be able to move past the trauma; also remained unchanged when comparing pre and post test responses. Seven of the nine participants believed the statement to be false before and after the educational training.
Chapter V
Discussion

This research study exhibits the level of knowledge along with misconceptions and stigmas associated with posttraumatic stress disorder in healthcare providers. In addition, this research study represents one educational program with a very small specific sample and may not represent all healthcare providers and settings.

Findings

The most significant findings of my research, are that 83% of the questions on the pre and post tests were not statistically significant, which leads me to wonder what other aspects effect learning outcomes, and how this can be improved. My findings left me curious about how to effectively educate healthcare providers on PTSD and mental illnesses. I believe, that continuous education on PTSD and mental illnesses would ensure that healthcare providers are up to date on current evidence-based practice guidelines, and therefore would provide optimal care for these patients.

Stigma

Stigmatization has a devastating effect on individuals with posttraumatic stress disorder. Minimal research has been completed to find the lasting effects of stigmatization on children and adolescents with mental illnesses, however; research completed with adults has shown the detrimental effects of it on their lives.
Research completed by the Regional Research Institute for Human Services [RRIH] focused on drawing conclusions from adult research to relate them to possible child and adolescent experiences. According to the RRIH (2009), there are three key effects of stigmatization: stigma from the general public, avoiding being labeled, and self-stigma. Stigma from the general public included stereotypes and discrimination seen regarding individuals with mental illnesses (RRIH, 2009). Avoidance of being labeled included avoiding any situation that may lead to a label of a diagnosis, and the stigma associated with the diagnosis. Avoidance also included not seeking treatment from a healthcare provider (RRIH, 2009). The RRIH also found that, "Research on adults has found that the public tends to stereotype people with mental illness as dangerous, incompetent, and blameworthy (2009)." Question (m) stating, People with PTSD exhibit increased violent behavior, was the only question in the pre and post tests related to misconceptions or stigmatizations in which the participants' answers changed when comparing pre and post tests. The percentage believing the statement to be true dropped from 56% prior to the training, to 33% following the training. These results indicate education related to this topic lowered the percentage believing this to be true in the immediate period following the training.

Although the research from the RRIH (2009) was based on adult findings, it can be assumed that children experience similar effects of stigmatization, from peers holding similar attitudes and believing the same stereotypes as adults have shown to. The three questions in the pre and post-tests regarding stigmatization
were not specific to children and adolescents, and highlighted misconceptions of posttraumatic stress disorder.

**Decreasing Stigmatization**

Efforts to decrease stigmatization found in current research included educational programs, protests of groups either physically, or in the media, and the building of interpersonal relationships (RRIH, 2009). An educational approach has been found to be only one part in the equation of decreasing stigma. Direct contact and creating relationships have been found to be a vital part of decreasing stigma, with the RRIH claiming that, "[D]irect interaction and building interpersonal relationships between individuals is the most effective strategy for reducing stigmatizing views and changing behaviors" (RRIH, 2009, p. 22).

However; the RRIH (2009) further states that "There is evidence that using educational approaches in combination with contact results in the best shift in attitudes about mental illness" (p. 22).

**Future Nursing Research**

There is a need for healthcare institutions and government entities to provide continuous opportunities for training on posttraumatic stress disorder and mental illnesses in order to reduce stigmatization. According to the RRIH (2009), "While research shows that educational approaches have resulted in some immediate reduction of mental illness stigma, additional findings suggest that individuals may return to baseline levels of stigmatizing attitudes at one-week follow-up" (p. 21). This highlights the need for continuous follow-up education.
Continuous education would insure that healthcare providers are up to date on current evidence-based practice guidelines, and therefore would provide optimal care for patients with posttraumatic stress disorder, and other mental illnesses.

Further research on this topic would include a larger sample size, as the sample size used for this study was small and focused, and healthcare providers from varying facilities and varying nursing professions. The educational training would include more information on stigmatization, and possibly an individual with PTSD sharing their experiences with stigma. I would have a screening process for participants, to identify an individual's history of PTSD, and a counselor available following the training. I did have two participants in my study that were personally touched by posttraumatic stress disorder that I was not aware of, until their comments and experiences with ptsd were brought up during the training. In addition, a follow-up post test not immediately following the educational training, as in this study, but instead in the weeks to months after could be given to participants, to assess the consistency over time of the shift in attitudes and beliefs.
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