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Walden University

College of Counselor Education & Supervision

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Kathleen Bethel

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Walden University
2019

Abstract

Demographic and Symptomology Differences

Among Sexually Assaulted Children with Posttraumatic Stress Disorder

by

Kathleen Bethel

MA, University of Central Florida, 2008

BS, The Ohio State University, 1991

Proposal Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Counselor Education and Supervision

Walden University

May 2019

Abstract

Trauma due to sexual assault becomes a life changing event during a child's critical developmental years. Bronfenbrenner's ecological systems theory outlines the process of understanding an individual's environment and how disruptions in one level may affect other levels. This study determined if gender and ethnicity among sexually traumatized children diagnosed with post-traumatic stress disorder (PTSD) predict symptom severity as measured by the Trauma Symptom Checklist for Children (TSCC) after controlling for the socioeconomic level and home environment. The population consisted of 126 children aged 8 through 16 with at least a second-grade reading level. Multiple regression examined whether male and female children were significantly different concerning the magnitude of PTSD symptom presentation. Multiple regression was also used to test whether gender and ethnicity played a significant role in predicting specific symptoms. Female gender had statistically significant predictive power concerning anger and sexual concern. Age at intake was associated with significantly higher scores for anxiety, anger, and dissociation. Home environment was a statistically significant predictor for anxiety, depression, PTSD, and sexual concern with children living in a foster home having significantly higher symptom severity in these domains. Socioeconomic status was the strongest predictor variable. The addition of sexual assault in the diagnostic criteria for the diagnosis of PTSD with the adoption of DSM-5 indicate a justification for further research. Increased awareness of inefficiencies in identification of symptoms and inadequacies in training trauma providers are indicative of social change. Further knowledge of PTSD symptom expression propagates a new protocol when treating traumatized children.

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Dedication

Undertaking this PhD has been a truly life-changing experience for me and it would not have been possible to do without the support of my husband, children, and father who I love with all of my heart and soul.

I am forever indebted to my father for giving me the opportunities and experiences that have made me who I am. He selflessly encouraged me to explore new directions in life and seek my own destiny. He always believed in my ability to be successful at anything I attempted. You are gone, but your belief in me has made this journey possible. I owe every bit of my existence to you.

I feel a deep sense of gratitude to my children who are now adults. They have never known their Mom as anything but a student. They formed my vision and taught me so many things that I cherish. I am also very grateful for their patience and self-less nature that will inspire me for the rest of my life. They loved, supported, encouraged, and entertained me in the most positive ways. Nick, Jessy, Alyssa, and Zach, you've had the greatest influence on my life and I am forever grateful.

Lastly and most importantly, I would like to thank my husband, Etienne. Thank you for the example that you set and for your patience and understanding. Your love, expertise, and encouragement inspired me to finish my study. You are my strength and your presence during this milestone was very important in a process that felt tremendously solitaire.

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I would like to thank Dr. Shaw for being an amazing chair. My only regret is that I wasn't able to begin my dissertation with you. There were many, many times the past few years that you guided me professionally and productively, but also compassionately. Words cannot describe how appreciative I am as you invested the most time and energy into my dissertation. My success in obtaining my PhD is definitely a reflection of you.

I would also like to express my gratitude to Dr. Stone. You bravely took on the responsibility of serving on my committee where so many left off. Your knowledge and support was critical during the final phase of my dissertation.

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Chapter 1: Introduction

Research suggests that mental health providers with specialized training in trauma work report less burnout than those providers who do not have specialized training (Garcia et al., 2016; Layne, 2014). In addition, Garcia et al. (2016) reported that those providers who implemented evidenced-based treatment found a significant increase in feelings of self-efficacy among themselves. Treatment is more effective if it is based on a thorough assessment of an individual's symptoms. Arredondo and Perez (2006) reported that providers who have a better understanding of posttraumatic stress disorder (PTSD) symptoms in relation to a child's gender and ethnicity more accurately diagnosed the disorder and were able to implement new treatment methods. Additionally, researchers such as Roberts et al. (2011); Carragher (2016); and De Arellano, Kolko, Danielson, and Sprague (2008) suggested a need for further research on the influence of gender and ethnicity on PTSD symptom expression.

Ruiz (2016) conducted a recent study using an analysis comparing rates and means of symptoms of sexually-assaulted children using paired *t* tests and one-way ANOVA. Ruiz used the Trauma Symptom Checklist for Children (TSCC) to measure symptom severity, but the study was limited to gender, ethnicity, and age-based differences. Ruiz's research showed a difference among Black and Hispanic female victims according to sexual concern and preoccupation.

This dissertation extended Ruiz's study in two ways. First, I examined the same variables (i.e., gender, ethnicity, and age) but accounted for the socioeconomic level

(approximated by median residential ZIP code level income) and home environment (biological parents or foster home). Carragher (2016); Leigh, Yule, and Smith (2015); Friedman, Resick, Bryant, and Brewin (2011); and Foster, Kuperminc, and Price (2004) acknowledged a gap in the literature concerning symptomology related to gender and ethnically diverse children using the TSCC. Furthermore, there is no research to date addressing differences in PTSD symptomology among Hispanic and non-Hispanic sexually-assaulted children referred to a large provider of mental health services for children (Carragher, 2016; Friedman et al., 2011; Leigh et al., 2015; Olff, Langeland, Draijer, & Gersons, 2007).

Less than 1 out of 11 Hispanic Americans with mental disorders engage with mental health providers for counseling services (Bridges, Andrews, & Deen, 2012). Furthermore, Bridges et al. (2012) found that a lack of health insurance and language barriers were the most common reasons Hispanic individuals did not pursue counseling services. Some authors have agreed that the main reasons for low utilization rates of Hispanics seeking trauma services are that treatment interventions historically have not been culturally responsive to their unique needs, and there is a lack of mental health providers for those persons for whom English is a second language (Bridges et al., 2012). To address these needs, Roberts et al. (2011) indicated a necessity to increase the participation in treatment by developing obtainable and culturally sensitive treatment options in an effort to decrease early termination of treatment and decrease trauma-related symptoms. Hispanic clients should receive health services that are culturally

responsive to their needs. Further, Julia (2002) and Layne (2014) proposed that when mental health services reflect the values and beliefs of the Hispanic client, they are more likely to use psychological services, and those treatments become more effective.

The results of this dissertation study were unique in that I addressed an under researched area concerning the symptom presentation of PTSD in victimized children by identifying factors that influence symptomatology. The results of this study contribute to a greater understanding of the impact of PTSD among children. This research was necessary as insights from it support mental health counselors' professional practice by showing which symptoms of trauma are most predominant based upon gender and ethnicity while considering socioeconomic status (approximated by median residential ZIP code level income) and family demographics (biological parent versus foster parent). The sample of children is from the ages of 8 to 16. The results of this study may show a critical need for providing specific trauma treatment for children. In addition, dynamics to promote positive social change may be created as I addressed clinical implications concerning the care, treatment, and training of providers for sexually-assaulted children diagnosed with PTSD.

In this chapter, I will address several problems generated by child sexual abuse. First, I will define the epidemiology related to child sexual abuse. I will focus attention on the symptomology and its short- and long-term consequences. Next, I will examine the purpose and theoretical framework that conceptualizes effects of child sexual abuse. I will continue with a review of the current literature concerning the symptomology of

PTSD as experienced by sexually-assaulted children, including expressed differences among Hispanic victims. Finally, I will examine the strengths and limitations of this research design and methodology.

Background

PTSD due to sexual assault becomes life changing during a child's critical developmental years (Erikson, 1968; Ide & Paez, 2000; Trickett, Noll, & Putnam, 2011). Because of victims' attachment to their caregivers, who are often the perpetrators, the effects of the traumatization may last well into their adult years (Carragher, 2016; Friedman et al., 2011; Holmes et al., 1977; Leigh et al., 2015). Moreover, examining the presentation of symptoms of sexual assault is important as the effects can negatively influence a victim's environment, personal boundaries, family relationships, and perceptions of sexualized behaviors (Carragher, 2016; Friedman et al., 2011; Holmes et al., 1977; Leigh et al., 2015).

Ruiz (2016) examined demographic differences among an ethnically diverse group of sexually assaulted children. Ruiz reported symptoms related to sexually-assaulted children were lower after completing trauma therapy. More specifically, Ruiz found that trauma symptoms were different among children according to their age, gender, and ethnicity. However, an identified gap in the literature proposed the need for additional research. A gap exists concerning specific demographic factors that affect a traumatized child's symptoms (Ruiz, 2016). Identifying ethnic minority differences that influence the symptomatology of traumatized children is critical to providing effective,

culturally-based treatment for Hispanic children who are sexually assaulted. The impact of factors such as children in foster care and family's income level may contribute to the knowledge base in an effort to decrease trauma symptoms, which may reduce the long- and short-term effects of their abuse (Ruiz, 2016).

Trauma symptoms related to sexual assault may cause victims to experience overwhelming recollections and other adverse effects of the abuse during their lifetime (Hannan et al., 2015); Holmes et al., 1977). Additionally, short-term effects of trauma may predispose victims to problems with the legal system (Dierkhising et al., 2013; Holmes et al., 1977), whereas long-term effects of trauma may cause victims to suffer from a milieu of problems over time (Hannan et al., 2015; Holmes et al., 1977; Leigh et al., 2015; Maniglio, 2014). For instance, Holmes et al. (1977) studied a sample of 124 adult men who were sexually abused as children who disclosed long-term consequences including drug and alcohol problems that manifested in their adult lives.

Problem Statement

The incessant consequences of child sexual assault as they contribute to chronic health problems, including involvement with the criminal justice system, and poor educational outcomes, have been well documented in the research literature (Cohen, 2016; Dierkhising et al., 2013; Fang et al., 2012; Holmes et al., 1977; Van der Kolk, McFarlane, & Weisaeth, 2012). Adult survivors of child sexual assault are associated with high rates of adult homelessness, poor job performance, and increased substance abuse (Fang et al., 2012; Hannan et al., 2015; Hillberg et al., 2011; Trickett et al., 2011).

The high cost of child sexual assault and the detrimental effects on an individual's mental well-being create major concerns for society (Hannan et al., 2015). An estimated $210,000 per victim is spent annually on hospitalization, mental health services, and the criminal justice system as an effect of child maltreatment in the United States (Fang et al., 2012).

According to Gunn and Taylor (2014), children not treated for PTSD symptoms have a higher risk of being involved in the juvenile justice system. Lack of treatment may also cause victims to experience hypervigilance, a situation in which they have a defensive or aggressive response to a trigger that reminds them of their assault (Duke et al., 2010). A victim may be diagnosed with oppositional defiant disorder, conduct disorder, adjustment disorder, or other mental health disorders due to their aggressive response (Van der Kolk et al., 2012). Unfortunately, these diagnoses based on observed behaviors are not a thorough identification of symptoms (Duke et al., 2010). The lack of knowledge of a victim's symptoms may create a diversion from the treatment of underlying PTSD symptoms (Carragher, 2016). Consequently, child victims could receive treatment that does not address the destructive symptoms caused by PTSD (Garcia et al., 2016; Trickett et al., 2011). PTSD symptoms tend to be worse for those who have suffered a previous crisis or other pre-existing psychological condition (Trickett et al., 2011).

Finally, it is noteworthy to mention that the majority of existing research was conducted on the identification of symptoms as defined in the Diagnostic and Statistical Manual IV- Text Revision (DSM IV-TR) criteria, which has since been replaced by the

Diagnostic and Statistical Manual-5 (DSM-5) criteria for PTSD (Carragher, 2016). The DSM-5 is the 2013 update to the American Psychiatric Association's (APA's) classification and diagnostic tool. The new criteria differ in important ways, including an entirely new section titled "Trauma and Stressor Related Disorders" (Carragher, 2016; Cohen, Mannarino, & Deblinger, 2016). Since adoption of the DSM-5, PTSD groups changed to include symptoms such as intrusion, negative alterations in mood, avoidance, and alterations in arousal and reactions (Bradley et al., 2014; Carragher, 2016; Cohen et al., 2016). In addition, the modified stressor criterion in the DSM-5 includes sexual assault (Bradley et al., 2014; Carragher, 2016; Cohen et al., 2016).

The addition of sexual assault in both the definition and diagnostic criteria for the diagnosis of PTSD with the adoption of DSM-5 indicates a justification for further research into the socioeconomic level (median household income) and home environment (biological parent or foster home) differences in symptomology among sexually assaulted children (Bradley et al., 2014; Carragher, 2016; Cohen et al., 2016). Stated differently, the expansion of types of distressful events such as sexual assault are now included in Criterion A of the DSM-5. It is important to understand how these changes affect a population of children who have been sexually assaulted (Carragher, 2016: Freidman, 2011; Garcia et al., 2016).

Perhaps more importantly, while scholarship related to child sexual assault victims is abundant (Cohen, 2010; Carragher, 2016; Trickett et al., 2011; Van der Kolk et al., 2012), little research has focused specifically on identifying factors that influence

symptomatology particularly focusing on children who have been referred to a large provider of mental health services for victimized children (Carragher, 2016; Friedman et al., 2011; Leigh et al., 2015; Olff et al., 2007). This gap in research is a problem because approximately one in four youth experience substantive trauma during their developmental years (Duke et al., 2010).

Although research regarding symptomatology associated with sexual trauma resulting in PTSD illuminates important findings, after an exhaustive literature search, I found no research that analyzed the severity of symptoms among children while adequately controlling for the socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parent versus foster parent). I addressed the severity of trauma symptomology, particularly as it relates socioeconomic level (median household income) and home environment (biological parents or foster home) among sexually assaulted children. For instance, I examined the same variables (i.e., gender, ethnicity, and age) as in the Ruiz (2016) study, but accounted for the socioeconomic level (median household income) and home environment (biological parents or foster home). Thus, I identified the severity of differences of presenting trauma symptoms among sexually assaulted children so that this new information provides implications for the design of new treatment protocols by mental health providers, community agencies, and child advocates.

Purpose

The purpose of this retrospective quantitative study was to examine gender and ethnic differences, while controlling for the influence of socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home) in the expressed symptomology associated with sexual trauma and a diagnosis of PTSD made using the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). In this quantitative descriptive study, which utilizes secondary data, I examined the symptoms of trauma specifically anger, anxiety, depression, dissociation, posttraumatic stress, and sexual concerns among male and female children and tracked ethnicity as measured by the Trauma Symptom Checklist for Children (TSCC). In addition, a PTSD population identified using the new diagnostic criteria added to the existing literature.

Research Questions and Hypotheses

The research questions for this study on the expressed symptomology of sexually assaulted children diagnosed with PTSD were as follows:

Research Question 1 (RQ1): Does gender and ethnicity among sexually traumatized children diagnosed with PTSD predict symptom severity as measured by the TSCC after controlling for the socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home)?

Null Hypothesis ($H_0 1$): Gender and Hispanic ethnicity among sexually traumatized children do not predict symptom severity as measured by the TSCC, after controlling for the socioeconomic level and home environment.

Alternative Hypothesis ($H_a 1$): Gender and ethnicity among sexually traumatized children diagnosed with PTSD predict symptom severity as measured by the TSCC after controlling for the socioeconomic level and home environment?

I posited that being male will be associated with statistically significant higher anger scores. Whereas, males are expected to have a stronger predictor of severity in anger and sexual concern compared to females: on the other hand, I posit that female gender is a stronger predictor in severity of depression, anxiety, and dissociation. The reviewed literature suggested that male victims experience more externalizing symptoms and females experience more internalizing symptoms associated with their sexual assault trauma (Carragher, 2016; Friedman et al., 2011; Foster, Kuperminc, & Price, 2004; Holmes et al., 1977; Leigh et al., 2015; McCall-Hosenfeld, Winter, Heeren, & Liebschutz, 2014).

Theoretical Framework

I used Bronfenbrenner's (2009) ecological systems theory to identify the core set of connectors that show how the research questions, hypotheses, and methodology of this study fit together. This theory outlines the process of understanding the levels of an individual's environment and how disruptions in one level may affect all levels. The

theory posits that a child's environment affects how a child develops and grows (Bronfenbrenner, 2009).

Bronfenbrenner (2009) recognized that there are different levels of a child's environment. These levels are the microsystem, mesosystem, exosystem, and macrosystem. Each level plays a vital role in the growth and development of a child. The microsystem is the immediate environment in which an individual lives (Bronfenbrenner, 2009). A child's microsystem might initiate a problematic path for traumatized children who do not receive appropriate mental health services after experiencing sexual abuse.

Applying this theory, trauma symptoms among children treated by a large provider of mental health services were organized according to gender and ethnicity. In addition, I used this theoretical perspective as a lens through which I investigated whether child trauma predisposes individuals to have disruptions in normal development, which may affect their functioning later in life. These disruptions can cause children to develop problematic functioning in all levels that may affect the victims functioning as an adult (Bronfenbrenner, 2009; Forkey et al., 2016; Hannan et al., 2015).

Failure to identify and treat trauma symptoms among children creates risk factors that predispose them to maladaptive behavior (Forkey et al., 2016; Holmes et al., 1977). Bronfenbrenner (2009) proposed that the microsystem's reactions to traumatized children affect a child's further development. For instance, at the microsystem level, sexually assaulted children might share their shameful experiences with people who do not believe

them. Sexually assaulted children are often accused of lying, manipulating, or creating allegations (Gunn & Taylor, 2014; Holmes et al., 1977). As a result of these factors, a series of ethical, cultural, and legal problems can be created that involve the courts and clinicians (Cohen et al., 2016; Gunn & Taylor, 2014), among others. This reaction or mistrust from significant others often disrupts a victim's development (Gunn & Taylor, 2014). The result of the disruption due to trauma at the microsystem level might cause a victim to have a general mistrust or doubt the intentions of significant others at the present time and throughout their lifetime (Adefolalu, 2014; Holmes et al., 1977). Thus, a victim's recovery and future relationships might be compromised because of the attitudes and beliefs of those whose role it is to protect them. For instance, female children who were assaulted by men often develop chronic symptoms of fear and uncertainty of men if left untreated (Adefolalu, 2014; Cohen et al., 2016).

Nature of the Study

The objective of this quantitative retrospective study was to determine if there is significance in the severity of children's trauma symptoms with a diagnosis of PTSD. Sexually assaulted children's symptoms were previously measured by the TSCC in relation to gender, ethnicity, and age, but account for socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home) among children who were treated by a large provider of mental health services. The sample included male and female participants from a large mental health agency who sought treatment for PTSD following childhood sexual trauma. All

participants resided in Florida at the time services were received. Data from each intake interview was collected by qualified mental health professionals as part of the victim's regularly administered protocol to assess symptomatology. The information contained in the closed client files was compiled between the years of 2014 and 2017.

This secondary data has already been collected by qualified professionals using the TSCC, developed by John Briere and published by Psychological Assessment Resources in 2001 (Briere et al., 2001). The TSCC (Briere, 1996) was used to assess a child's trauma symptoms during the intake session at the agency. The TSCC is a 54-item self-report measure designed to assess symptoms associated with traumatic experiences in children from ages eight to 16 (Briere, 1996). In this study, I addressed the complexity of symptomology as experienced by ethnically and gender-diverse sexually traumatized children. Complexities have been determined where the insight might lead to different treatment interventions. This data set will not contain any identifiable physiologic and mental health information.

Compiling data extracted from these case files illuminated any variations in symptom presentation, thus affecting an agency's approach to treatment (Forkey et al., 2016). Furthermore, examining symptom presentation can result in more treatment that is trauma-focused versus behavior-focused (Ruiz, 2016; Forkey et al., 2016). Therefore, a problem that I addressed in this study was the differences in the presenting symptoms of sexually assaulted children diagnosed with PTSD after controlling for the socioeconomic

level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home).

After the symptomology was addressed, I collected the data on the variables of interest and transferred it to a database for analysis. Licensed clinical counselors conducted the data transfer that was masked and password protected on a secured server. The use of secondary data has many advantages, including, but not limited to, the potential to provide a valuable research experience without direct contact with vulnerable research participants.

The dataset contained variables indicating the severity of specific symptoms: anger, posttraumatic stress, dissociation, sexual concerns, anxiety, and depression as measured by the TSCC (Briere et al., 2001). I analyzed the severity (continuous variable) of each symptom. The statistical analysis included both descriptive (means, variances, and frequency distributions) and a difference in proportions and means tests.

In addition, I conducted a multiple regression to examine whether the two groups of children were significantly different concerning the magnitude of PTSD symptom presentation. Multiple regression was also used to test whether gender and ethnicity played a significant role in the probability of a particular symptom after controlling for the influence of confounding factors such as the socioeconomic (median household income) and family environment (biological versus foster parent).

Definition of Terms

Anxiety: A victim's anxiety is characterized by feelings of worry, hyperarousal, and generalized anxiety (Cohen et al., 2016; Forkey et al., 2016).

Anger: Anger is also a respondent variable that can be described as angry thoughts, feelings, and behaviors (Cohen et al., 2016; Forkey et al., 2016).

Depression: Depression as a victim's responsive variable indicates feelings of sadness, loneliness, and unhappiness (Cohen et al., 2016; Forkey et al., 2016).

Child sexual abuse: The term child sexual abuse is defined by federal legislation in the Child Abuse Prevention and Treatment Act (CAPTA). The term was updated to the title Keeping Children and Families Safe Act of 2003. A summary of the updated act includes the persuasion, employment, or bribe of a child to engage in any sexually explicit conduct as defining factors of child sexual abuse (42 U.S. Code? 5106g - Definitions | US Law | LII / Legal ... (n.d.).

Dissociation: Dissociation is defined as pretending to be someone else or somewhere else, fantasy, and daydreaming (Cohen et al., 2016; Forkey et al., 2016).

Outcome variables: Outcome variables for this study are the child's self-reported symptoms such as anxiety, depression, sexual concerns, post-traumatic stress, anger, and dissociation. In addition, socioeconomic level (median household income) and family environment (biological versus foster parent) are dependent variables.

Post-traumatic stress: Post-traumatic stress includes intrusive thoughts, sensations, and memories of the trauma (Cohen et al., 2016; Forkey et al., 2016).

Post-traumatic stress disorder (PTSD): This is a combination of specific symptoms that commonly occur in response to a traumatic event or events (Cohen et al., 2016). I used the DSM-5 criteria defined in the previous section for the purpose of this dissertation.

Predictor variables: Predictor variables for this research study are gender and ethnicity.

Sexual Concerns: Sexual Concerns indicates sexual distress and preoccupations (Forkey et al., 2016).

Socioeconomic level (median household income): Florida zip codes were sorted into quintiles by median income over this period. The participant's socioeconomic level was approximated using 5-y median incomes from zip codes from the year 2014 to 2017 as reported by the US Census.

Trauma: This term is defined as any violent, abusive, or neglectful experiences that involve children. It also includes a range of maltreatment which includes pervasive and detrimental actions that can be attributable to a caregiver's mental illness, substance abuse, or criminal involvement (Cohen et al., 2016).

Assumptions

The following section clarifies the aspects of the study that are assumed. Participating children provided honest and forthright responses to the TSCC that identified their symptoms. The TSCC data collection instrument is assumed valid and reliable based upon previous research results stating reliability and validity. The above assumption is necessary, as the current study would not be credible if I used unreliable measures (Creswell, 2009). However, it is assumed that the clients disclose all of their symptoms at the intake session with the clinician and their presenting symptoms do not change over the course of treatment. In addition, the agency's policy states the clients can not receive treatment from another facility while under the care of CHS. A final assumption is that licensed therapists correctly diagnosed the victim's symptomology using criteria from the DSM-5 and the licensed therapists entered information correctly regarding demographics and symptoms (Gilbert et al., 1996). I limited assumptions to those absolutely necessary and unavoidable.

Scope and Delimitations

In this study I analyzed the extent to which gender and ethnic specific symptomatology related to sexually assaulted children diagnosed with PTSD by a large mental health provider in Central Florida**.** To reiterate, in this quantitative study I examined gender and ethnic differences, while controlling for the influence of socioeconomic level (median household income) and home environment (biological parents or foster home) in the expressed symptomology associated with sexual trauma

and a diagnosis of PTSD. Identifying gender, ethnicity, and age while accounting for socioeconomic level (median household income) and home environment (biological parents or foster home) differences in trauma symptomology is necessary to target public health interventions aimed at recognizing PTSD and subsequently improving treatment methods (Garcia et al., 2016: Roberts et al., 2011). The understanding of culturally specific symptoms related to sexual assault are necessary for planning and developing mental health services (Garcia et al., 2016).

This dissertation limits its coverage to traumatized children who received care by a large mental health provider in Florida. Therefore, the results of the study may not generalize to other states or geographical areas. Its main purpose is to identify the symptoms of trauma among sexually assaulted children in Florida. My dissertation may create a necessity to provide solutions to the specific treatment needed for these children. Each of the respondents was assessed at intake using the TSCC for children as a tool to identify the presence of specific symptoms. In a follow up visit, the DSM-5 criteria were used to diagnose the client with PTSD.

Additional inclusionary criteria involve age of the child and the child's reading ability. Although the agency studied for this dissertation provides services for toddlers through adulthood, only children aged eight through 16 were included in the study. These criteria were based on the appropriate age ranges for the TSCC. A second-grade reading level for child participants was also required as that is the minimum level of reading proficiency needed to comprehend the TSCC measure (Forkey et al., 2016).

PTSD Model

Briere and Runtz (1987); Carragher (2016); and Terr (1991) initially conceptualized child sexual abuse as PTSD rather than thinking of it as a loose collection of symptoms. As proponents of the PTSD model, they understood child sexual abuse as a syndrome that commonly occurs in response to traumatic experiences. Taking this notion further, Deblinger et al. (1989) suggested that the typical post-traumatic reactions of sexual assault can be organized into specific diagnostic groups, and these groups are very similar to the ones used in the DSM-5 (Carragher, 2016). Their criteria included re-experiencing the trauma, avoidance or dissociative symptoms, and hyperarousal. In general, conceptualizing child sexual abuse as PTSD suggests that children's symptoms are their attempt to cope with the trauma of sexual abuse (Briere & Runtz, 1987; Terr, 1991). Although, I considered the PTSD Model to inform my study I did not choose the PTSD Model because gender was not considered.

However, Briere and Runtz (1987); Ruiz (2016), and Terr (1991) did not take in to consideration the differences in post-traumatic stress disorder diagnostic criteria among gender. Carragher (2016) conducted quantitative research to show differences in the magnitude of client symptoms and functioning across genders. Carragher et al.'s (2016) research informed my study, as gender differences were found among the intrusive, re-experiencing, and alterations in reaction and arousal. Moreover, the results of the Bonferroni-adjusted Wald chi-square tests showed differences among gender in 4 of the DSM-5 PTSD symptoms. Carragher et al.'s study is relevant to my dissertation as

females reported significantly higher rates of negative beliefs, reduced interest, restricted affect and sleep disturbance symptoms compared to males.

A limitation of Carragher's et al.'s (2016) study on sexually assaulted children concerned the low number of responses to their survey. However, Carragher et al. emphasized that the number of completed surveys were high and population weights were administered to account for biases and generalizability. Importantly, Carragher et al. (2016) challenged the PTSD conceptualization proposed by the DSM-5. He asserted that this model has provided little progress toward understanding how individual and gender differences affect a child's symptoms related to sexual trauma.

In addition, both Finkelhor (1988) and Spaccarelli (1994) asserted that the PTSD conceptualization of child sexual abuse is limited because PTSD is not a straightforward syndrome. They posited that the PTSD model does not explain the development of symptoms. Therefore, they claimed that it is of little use for treatment, research, or the further development of theories to explain the impact of child sexual abuse. Further, they suggested that sexual assault represents a unique form of trauma and that its impact extends beyond the range of symptoms encompassed by the PTSD model.

Traumagenic Dynamics Model

Finkelhor and Browne (1986) proposed a Traumagenic Dynamics Model to help clarify how and why trauma from sexual abuse extends beyond the symptoms encompassed by the PTSD model from the DSM–5. The Traumagenic Dynamics Model is unique as it defines patterns that emerge from sexually assaulted children that account

for PTSD-related symptoms (Finkelhor & Browne, 1986). The Traumagenic Dynamics Model extends further than the previous PTSD conceptualization to incorporate additional consequences of child sexual abuse over the lifespan (Finkelhor & Browne, 1986).

Additional consequences of PTSD include a sense of stigmatization from the victim's family members, their community, and society that comes from a child feeling damaged or ruined (Finkelhor & Browne, 1986). As a result, the child might experience lowered self-esteem, guilt, shame, isolation, self- mutilation, suicide, substance abuse, and a sense of being different from others (Dauber, Lotsos, & Pulido, 2015; Finkelhor & Browne, 1986; Hannan et al., 2015). Victims also experience traumatic sexualization, which refers to their sexuality developing in an inappropriate or dysfunctional way (Finkelhor & Browne, 1986). For example, as a child matures, traumatic sexualization can become apparent when they question their own sexuality (Finkelhor & Browne, 1986; Holmes et al., 1977). Traumatic sexualization is presumed to occur because the child has been introduced to sexual behavior prematurely (Finkelhor & Browne, 1986). Traumatic sexualization is also exacerbated by use of force during the abuse and the duration of the abuse (Dauber et al., 2015; Finkelhor & Browne, 1986). These distressful symptoms may stem from the perpetrator's denigrating or blaming the child for the abuse and from the failure of significant others to emotionally support the child following disclosure (Finkelhor & Browne, 1986; Murray et al., 2014; Saunders & Adams, 2014).

The Traumagenic Dynamics Model emphasizes key elements that Bronfenbrenner's (2009) model also stresses. For instance, due to a child's sexual assault, his or her sexuality is shaped in a developmentally inappropriate and dysfunctional way. Both models are similar as they posit that children emerge from the consequences of sexual abuse with distorted views of appropriate sexual boundaries and confusion about their sexual orientation (Bronfenbrenner, 2009; Finkelhor & Browne, 1986). Although the primary issues affecting both male and female victims are thought to be similar according to the Traumagenic Dynamics Model, differences are hypothesized to exist in some psychological and behavioral manifestations (Finkelhor & Browne, 1986).

Trauma Outcome Process Assessment

Both the Trauma Outcome Process Assessment (TOPA) and Traumagenic Dynamics hypotheses posit that a victim's efforts to recover correlates to how well they return to pre-trauma functioning levels (Rasmussen, 2000). The TOPA illustrates that particular neurotic personalities might have an influence on trauma exposure and outcomes (Rasmussen, 2000). The TOPA model's strength is that it considers individual characteristics such as gender, ethnicity, and age as key factors that affect symptoms among sexually assaulted children (Rasmussen, 2000). A limitation of the model involves the validity. Few studies have been conducted to validate the TOPA model. The TOPA model's validity could be established and verified with additional longitudinal studies that analyze pre- and post- characteristics to determine if gender, age, and ethnicity are

related to sexual assault trauma symptoms (Miller & Rasmussen, 2010; Rasmussen, 2000). Therefore, the TOPA was considered, but not chosen to support my study.

The TOPA model (2000) and Bronfenbrenner's model (2009) emphasize that certain familial relationships change as a result of exposure to trauma, and the relationships also impact trauma symptoms over time. Miller and Rasmussen (2010) theorized that during recovery, a victim could work through denial and anger and express feelings as well as grief. In addition, during the TOPA model's recovery stage, victims are encouraged to take responsibility for their continued healing and growth. Authors agree that the TOPA model stresses growth, reflection, and improvements in relationships during and after trauma exposure (Rasmussen, 2000; Tedeschi & Calhoun, 1995; Thompson, 2000).

However, the TOPA model has a specific philosophy that mirrors Trauma-Focused Cognitive Behavioral therapy (TF-CBT). For instance, the TOPA model posits that youth choose to correct inaccurate self-perceptions and distorted thinking processes and take appropriate responsibility for their own behavior. This is also an integral part of TF-CBT narrative intervention, which also helps the victim correct their distorted thinking about their trauma. The Recovery/Integration response of the TOPA model, as well as the skills, learned during TF-CBT are characterized by regulating impulses, emotions, behaviors and problem-solving skills, as opposed to masking impulsivity and poor judgment (Rasmussen, 2001). Moreover, both models propose that a successful recovery is contingent on the youth experiencing a safe and nurturing environment

(Rasmussen, 2001). The TOPA model overlaps with the evidenced based ideology, interventions, and concepts of TF-CBT, whereas Bronfenbrenner's Ecological System has a more in depth understanding of the development and progression of the effects of childhood sexual assault.

Furthermore, primary care providers lack data and critical information to guide them while screening for trauma symptoms among children (Forkey et al., 2016; Holmes et al., 1977). TOPA supports the need to study PTSD symptomology as it relates to gender and ethnicity among traumatized children. For instance, TOPA goes beyond previous models as it includes both affective and cognitive symptoms concerning the ecological framework. In addition, the ecological model validated that certain characteristics might contribute to trauma symptomology and trauma outcomes. The TOPA also differentiates between self-destructive and other symptom patterns that are directed toward others such as anger and aggression.

Limitations

There are several factors to consider that contribute to the study's limitations. First, because of the retrospective design of the study, I could not control for preexisting psychopathology. Additionally, one potential factor concerns the TSCC. The current version of the TSCC is not updated to reflect the changes in the DSM-5 (Dauber et al., 2015). However, it will take a considerable amount of time to develop and validate assessments considering the current version of the DSM. Therefore, in this study, I will use existing items in the TSCC to determine the presence of specific symptoms.

However, identification of victims with PTSD will be based on the results from the diagnosis made using the DSM-5.

Another limitation of this study is the reliance on the victim's reports of their symptoms and behavior. Significant child symptomatology might have been missed or underreported in studies that exclusively relied on the victim's reports. In addition, a second-grade reading level for child participants was also required as that is the minimum level of reading proficiency needed to comprehend the TSCC measure (Forkey et al., 2016).

Literature suggests that there is poor agreement between the parental report of symptoms and the child's report of symptoms (Achenbach & Edelbrock, 1991). Additionally, Achenbach and Edelbrock, (1991) recognized that parental reports identify more externalizing or outward behavior rather than less visible or internalizing behavior, such as sadness. However, significant symptoms related to sexual assault might be missed or underreported altogether in studies if research were to rely only on children's reports of symptoms (Holmes et al., 1977).

Gender options on the intake form were defined as male or female. Although it is best practice to go beyond binary categories of gender, this limitation is worth noting. Collecting binary categories of gender is a limitation as giving options beyond male and female for gender is prudent in social science research. In addition, ethnicity on the intake form was only defined as Hispanic or Latino and Non-Hispanic or Latino for the clients. As a result, wide varieties of ethnicities were included under the label "Hispanic". This

is a limitation as there are significant differences among Puerto Ricans, Mexicans, Cubans, Central and South Americans.

A problem with using household income is that it includes 1-person households as well as 4 and 5-person family incomes as the household income. For example, a $20,000 household income for a person living alone is nowhere near the same as a $20,000 income for a family of 4. But, in combining them for the sake of getting a statistical measure such as a mean or median we are treating them as equals (Jackson & Zenou, 2013).

A final limitation of the study is the inability to confirm whether the children were honest and truthful about their disclosure of sexual assault. However, the provider of mental health services validated the children's abuse based on their presenting symptoms, disclosure, collateral reports, and the results of a physical examination. The focus of this study will be on the symptoms of children who were allegedly sexually abused, and the researcher did not attempt to verify their accounts. Instead, the current study sought to understand the symptoms related to trauma in relation to child sexual abuse.

Significance

This study is unique as it addresses an under-researched area concerning PTSD and the ethnic and gender differences in symptom presentation while controlling for socioeconomic level (median household income) and home environment (biological parents or foster home). The results of this study may contribute to mental health professionals' understanding of the impacts of trauma among genders and ethnicities.

Additionally, insights from this study might support the professional practice of mental health counselors by showing differences in PTSD symptom severity according to gender and ethnicity utilizing the TSCC.

Because of the ethnic diversity of the Central Florida area studied, this study might also provide an opportunity for additional future research on the differences in sexual assault symptoms between Hispanic or Latino and non-Hispanic or Latino children. Hispanic or Latino and non-Hispanic or Latino children present with different mental health needs, which few studies have examined (Roberts et al., 2011). Identifying ethnic differences among victimized children is necessary to target public health interventions aimed at treating and improving treatment outcomes (Garcia et al., 2016: Roberts et al., 2011).

My study might also contribute to a better understanding of the need for gender- and ethnicity-specific training for trauma-focused mental health care providers than was previously known. According to the Council for Accreditation of Counseling and Related Educational Programs' (CACREP) 2009 standards, mental health providers are required to improve their competencies and skills to better treat trauma victims (CACREP, 2009). CACREP also emphasizes the importance of recognizing and understanding the importance of trauma training and demonstrating knowledge in the area of trauma (Parker & Henfield, 2012). Sexual victimization is a challenging focus of counseling as assessments and specific evidenced based treatment methods are critical to the victim's healing process (Garcia et al., 2016: Briere & Scott, 2006). Additionally, Parker and

Henfield (2012) reported that counselors felt unprepared to assess victims of sexual assault trauma (Garcia et al., 2016; Holmes et al., 1977). Moreover, 60% of mental health providers reported wanting additional support and training to perform trauma interventions (Garcia et al., 2016; Parker & Henfield, 2012). The need for training will be expanded upon further in chapter two.

Further, disseminating the relevant findings from this study could increase awareness of inefficiencies in current identification of symptoms and inadequacies in the training of trauma providers (Ericksen, 1997; Garcia et al., 2016). Because of this study, I hope to increase awareness among mental health providers, advocates, and educators in the community. In response to Astramovich and Coker's (2007) proposed key shift in the counseling profession to continually assess and evaluate programs and outcomes, my study could produce social change by allowing me to educate professionals and the public through training sessions and seminars that promote a greater understanding of PTSD symptoms than was previously know.

Summary

In this chapter, I provided an introduction to child sexual assault as a topic of this study and identified the potential positive social change implications. The contents of this chapter included background information and history on child sexual assault symptoms as identified as PTSD. I also offer information on PTSD among sexually assaulted children and details on the quantitative design, its variables, research questions, hypotheses, and how Bronfenbrenner's ecological systems theory relates to and provides

the theoretical framework for this study. Socioeconomic status is reviewed as a variable that may be a risk factor among victims of sexual abuse.

Chapter two follows with an exhaustive review of literature related to PTSD symptomology among children and systems' involvement, its costs and effects, Bronfenbrenner's ecological systems theory, and different types of interventions, and collaboration. I also address the gaps in existing literature that identify why this study is important to conduct.

Chapter 2: Literature Review

Introduction

PTSD coincides with a traumatic experience involving a severe threat to an individual's life or personal safety (Carragher, 2016; Friedman et al., 2011; Holmes et al., 1977; Leigh, Yule & Smith, 2015). In addition, PTSD can be difficult to diagnose in children because they have limited awareness of their thoughts and feelings (Connor, Ford, Arnsten, & Greene, 2015). Recognizing and treating a traumatic experience among children is also challenging due to their limited vocabulary and lack of assertiveness (Conner et al., 2015; De Arellano, Danielson, Sprague, 2008; Carragher, 2016; Putnam, 2009). Therefore, a key concern for therapists surrounding trauma is developing an accurate understanding of the symptoms that children develop due to sexual assault, especially in terms of the ethnic and gender differences while controlling for socioeconomic level (median household income) and home environment (biological parents or foster home; Connor et al., 2015; Forkey, 2012; Ruiz, 2016). PTSD is a timely and relevant subject in the counseling profession because of the increasing number of traumatized children diagnosed with PTSD due to sexual assault (Cohen et al., 2016).

Unfortunately, children are often reluctant to disclose traumatic experiences while in the presence of their caregivers (Murray, Nguyen, & Cohen, 2014; Saunders & Adams, 2014). Many scholars have concluded that if children's trauma symptoms are not identified and treated, the chances of their recovery are lessened (Briere & Runtz, 1987; Carragher, 2016; Holmes et al., 1977; Murray et al., 2014; Saunders & Adams, 2014;

Terr, 1991). Therefore, the identification of specific trauma symptoms affecting children is critical so the appropriate intervention integrates into their recovery process (Connor et al., 2015; Forkey, 2012; Ruiz, 2016). A child's recovery can be life changing. Some research has identified beneficial mental health services that address a sexually assaulted child's trauma symptoms. Ruiz (2016) gathered archival data of 176 sexually assaulted children between the ages of 8 and 16 years of age and reported their symptom scores were significantly lower for 41 children who underwent 3 months of trauma-focused cognitive-behavioral therapy (TF-CBT).

However, a thorough review of the professional literature revealed that my study is the first to examine gender and ethnic differences among sexually assaulted children diagnosed with PTSD based on the results from the diagnosis made using the DSM-5 while accounting for other variables in Central Florida. My intent for this study was to contribute to social change by providing a greater understanding of the impact of trauma between genders and ethnicities after controlling for socioeconomic level (median household income) and home environment (biological parents or foster home). Insights from this study may support the professional practice of mental health counselors by showing differences in PTSD symptomology presentation.

The Central Florida area is ethnically diverse. Therefore, I identified a need to research differences in sexual assault symptoms among Hispanic children as their own subgroup and White children. I found that identifying the ethnic differences between Hispanic or Latino versus non-Hispanic or Latino PTSD clients was necessary because

their symptoms may manifest in different ways. Doing so might lead to better-targeted public health interventions for treating PTSD in Hispanic or Latino versus non-Hispanic or Latino children and improving treatment outcomes. Finally, understanding how gender and ethnicity relate to the presentation of PTSD symptoms is important for planning and developing mental health services for these children (Kerig & Becker, 2012; Layne et al., 2014; Roberts et al., 2011).

I also addressed the limitations of previous studies that used the DSM-IV-TR criteria for diagnosing PTSD. My study contributes to the literature based on the newer DSM-5, which includes many changes in terms of number and types of classified disorders. Because of my professional work, I also argue that there is a need for training for therapists in terms of particular gender and ethnic considerations they need to consider when treating sexually assaulted children. Traumatized children are challenging clients, so specific, evidenced-based treatment methods are critical to a victim's healing process (Briere & Scott, 2006; Layne et al., 2014).

At the conclusion of this literature review, a better understanding of PTSD symptoms related to child sexual assault will be apparent. Bronfenbrenner's theoretical model related to sexual assault enhances the reader's knowledge concerning the importance of implementing culturally responsive models for treatment. A review of treatment strategies and evidence-based recommendations follow. Furthermore, the reader will be more aware of the limited empirical studies on PTSD symptomology related to gender and ethnicity among sexually assaulted children.

Literature Search Strategy

The literature review for this study consisted of searching the following databases: Walden University's Dissertations, ERIC, Google Scholar, JSTOR, Medline, and Psychology: A SAGE Full-Text Collection, PsycARTICLES, PsycINFO, Social Sciences Full Text, and Sociological Abstracts. The search terms were: *sexual abuse, ethnicity, trauma, post-traumatic stress disorder, changes in the DSM-5, trauma symptom checklist for children,* and *adolescents*. A combination of keywords helped identify peer-reviewed journals, books, and dissertations.

I further examined the compiled articles to determine whether they provided additional information about sexually assaulted children between 2012 and 2017. I used reference lists of relevant articles to search for additional information. I mostly considered the 5 years before 2017. However, my search for information spanned back 20 years as to incorporate necessary historical literature concerning the symptoms related to sexually assaulted children. In cases where there is little current research, I collaborated with doctoral students and other qualified professionals with extensive knowledge in the field.

Theoretical Framework

A model or framework that gives purpose and understanding is essential to research. Models provide the background that supports exploration and offers a justification for a particular research problem. Bronfenbrenner's model for understanding PTSD helped to contemplate other models and reduce biases that may

sway one's interpretation. I describe the models below which helped me determine how I perceived, understood, and interpreted my data. In addition, the explanations below will help provide an understanding of my perspective and context.

Bronfenbrenner's Ecological System

Bronfenbrenner's (2009) ecological systems theory was originally published in 1979 to offer insight into the effects different environmental systems have on individuals. Holman and Stokols (1994) further analyzed and validated this ecological systems theory as a foundation for many other theorists' work. Bronfenbrenner's (2009) ecological systems theory gives an original perspective and incorporates deep knowledge that supports that the effects of child sexual abuse as a factor of their psychosocial development. The ecological systems theory is widely used by researchers, professionals, and educators because it collaborates how a distressful event can affect all aspects of a child's life through to their adult years (Bronfenbrenner, 2009; Hannan et al., 2015). Child welfare agencies encourage the application of an ecological systems theory such as Bronfenbrenner's, as it provides a holistic framework that integrates a child's development and environment (Golightley, 2003).

Bronfenbrenner's theory proposes that children's exposure to sexual trauma has implications on a child's development consisting of cognitive, physiological, social, emotional, and behavioral areas (Cohen et al., 2010). I applied Bronfenbrenner's theory to this study's population because doing so helped me to outline the stages of a traumatized child's environment and how experiencing sexual assault during one of their

developmental levels might affect a child's relationships, academic performance, and view of the world. This theory posits that a child's environment might exacerbate their symptoms of sexual assault (Bronfenbrenner, 2009).

Bronfenbrenner's model encompasses all levels of a child's life, whereas the TOPA model is narrower and focuses on an individual's interaction with their family (Brown & Rasmussen, 1994; Rasmussen & Brown, 2000). The comprehensive philosophy of the Bronfenbrenner model was more appropriate to this study because it employs a greater knowledge of the effects of traumatized sexually assaulted children than other models. More specifically, Bronfenbrenner (2009) recognized the levels of a child's environment as the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. Each level plays a vital role in the growth and development of a child (Bronfenbrenner, 2009).

The microsystem is the immediate environment in which an individual lives (Bronfenbrenner, 2009). For instance, caregivers and teachers are in a child's microsystem. A change in a child's microsystem might initiate a problematic path for traumatized children where their symptoms are not identified. Bronfenbrenner's model posits that the effects of the disruption of a child's microsystem may be associated with trauma symptomology. Bronfenbrenner's model is necessary to improve the understanding of factors such as removal of a child from parental custody might affect the severity of trauma symptomology. Furthermore, how children act among or react to the people in their microsystem affects how their microsystem treats them in return. For

instance, if children are mistreated during their developmental years, they may mistreat individuals in their adult life.

The mesosystem proposes that children develop by influence from their close familial environment, as well as their surrounding environments (Bronfenbrenner, 1989). The chronosystem is the layer in the mesosystem that incorporates the concept of time in relationship to a child's environment (Bronfenbrenner, 1989). Often, sexually assaulted children encounter the legal system which is part of their environment within the chronosystem. Sexually abused children often have a negative experience with the legal system (Gunn and Taylor, 2014) which results in a lack of confidence in the chronosystem (Bronfenbrenner, 2009). The lack of trust or confidence for the legal system demonstrates the effects of the chronosystem. In other words, how these groups or organizations interact with traumatized children may affect how these children progress through specific milestones in their lives (Bronfenbrenner, 2009). For instance, the more positive, encouraging, and nurturing these relationships and places are, the better the traumatized child will be able to produce healthy cognitive patterns (Bronfenbrenner, 2009).

Bronfenbrenner's theory is related to my research questions as it reinforces that male and female children are socialized differently by society in all of Bronfenbrenner's levels. Eagly (2013) and Holmes et al. (1977) proposed that gender roles are associated with aggressive behaviors such as sexual assault. Simonson and Subich (1999) also theorized that both men and women have expectations for what they

consider normal gender-role behavior through their developmental years. It is important to note that in some ethnic groups, male sexual entitlement is considered normal and sexual violence is accepted (Eagly, 2013). Furthermore, Campbell, Dworkin, and Cabral (2009) proposed culture and ethnicity may contribute to a victim's symptoms as a result of their negative self-perceptions associated with being a victim of sexual assault. For instance, many of society's norms and values are linked to female celibacy (Campbell et al., 2009). As a result, females are often blamed and ridiculed when they are sexually assaulted, which leads them to develop a negative perception of themselves (Campbell et al., 2009).

Regardless of the number of research studies, a lack of understanding among professionals concerning PTSD symptomology as experienced by the gender and different ethnicities of children still exists (Forkey et al., 2016; Kilpatrick et al., 2013). Negative outcomes are a result of many of the previous integrative models that have attempted to contribute to a better understanding of trauma and victims (Garcia et al., 2016; Terr, 2003).

Bronfenbrenner's (2009) model is the most up-to-date and appropriate model for my research because it maintains that children who suffer from sexual assault may present with different symptoms that may require specific gender- and ethnicity-based treatment interventions to prevent adverse alterations in their normal development.

Bronfenbrenner's (2009) model applies to my specific variables of interest. For instance, a child's socioeconomic level (median household income) and home

environment (biological parents or foster home) may cause a disruption of developmental tasks, which may directly affect their future adult functioning and wellbeing (Chapman et al., 2007; Hannan et al., 2015). Researchers found that mental illness was more prevalent among societies with large income inequalities (Pickett et al., 2006; Pickett &Wilkinson, 2015). In addition, specific forms of mental illness such as depression, schizophrenia, and psychotic symptoms were more common where there were greater differences in family income (Burns et al., 2015). Burns et al (2015) also posited that unequal family income hinders a child's cognition and thought processes, which has negative consequences on a child's well-being throughout their life. Bronfenbrenner's (2009) framework relates to the approach I undertook in this study with regard to my key research questions; it also provided needed information on the development of a victim's gender and ethnicity.

Literature Review Related to Key Variables and/or Concepts

Overview of PTSD from the DSM-IV and DSM-5

The most significant change in the DSM-5 diagnosis of PTSD is its assignment to the Trauma and Stressor-Related and Dissociative Disorders (TSRDD) diagnostic category (Friedman, 2013). The change from its previous description emphasizes the significance of a precipitating stressor (Friedman, 2013). With the newer DSM-5, experiencing a traumatic or distressful event may precipitate a new class of conditions that affect an individual's mental well-being (Kilpatrick et al., 2013). Moreover, Kilpatrick et al. (2013) argued that the emphasis on the triggering traumatic event also

called for the definition of trauma; to be redefined, regardless of the view of Brewin et al. (2009), where the individual rather than a committee should define a traumatic event. Ultimately, Kilpatrick et al. reported that the DSM-5 retained criterion A1, with revisions to the definition that defines trauma as exposure to actual or threatened death, serious injury, or sexual violence. Friedman (2013) went on to stipulate that actual or threatened death must have occurred in a violent or accidental manner; and PTSD cannot be diagnosed if the experience of violence or death occurred through electronic media, television, movies, or pictures unless the exposure through these means was work-related.

In addition, the DSM-5 proposed that behavioral symptoms become more of a focus when diagnosing PTSD as compared to the DSM-IV (Friedman, 2013). The DSM-5 identified four very specific diagnostic groups to describe the disorder (Friedman, 2013). They are re-experiencing, avoidance, negative cognitions and mood, and arousal (Friedman, 2013). Re-experiencing symptoms might be intrusive thoughts, recurring dreams, flashbacks, or other intense psychological distress (Friedman, 2013). Avoidance includes triggers or distressing memories, thoughts, or feelings that remind the victim of the event (Friedman, 2013). Negative cognitions and mood include persistent and distorted feelings of the blame of self or others. Victims might also feel estranged from others and have a marked decrease in pleasurable activities (Friedman, 2013). Negative cognitions and mood also include an inability to remember important or critical aspects of the event (Friedman, 2013). Arousal includes aggression, self-destructive behavior, sleep disturbances, and hypervigilance or related problems (Friedman, 2013).

Although these new categories in the DSM-5 provide more nuance to the diagnosis and treatment of PTSD, there is still some room for improvement. I agree with Kilpatrick et al. (2013) that to better investigate the issue of gender and ethnic differences among sexually assaulted children, studies need to be conducted that include a significant number of male victims while utilizing the TSCC (Kilpatrick et al., 2013). Thus, my study incorporates these methods of analysis in addition to the DSM-5 descriptors.

PTSD among Sexually Assaulted Children and Adolescents

Individuals who have experienced a traumatic event such as sexual assault are often diagnosed with PTSD (Carragher, 2016; Kerig & Becker, 2012; Layne et al., 2014). Current diagnostic criteria for PTSD focus on re-experiencing, avoidance, and hyperarousal. These categories assigned to symptoms of PTSD manifest differently in children than adults (Carrion et al., 2002; Levendosky et al., 2002). Therefore, it is vital that professionals working with trauma victims carefully look at symptoms displayed by sexually assaulted children (Holmes et al., 1977; Roberts & Kaysen, 2011; Perrin et al., 2000). Traumatized children often display symptoms such as impulsivity and inattentiveness, which frequently negatively affect their academic performance and behavior at school (Terr, 2003). Additionally, children sometimes isolate themselves from others and withdraw from their friends and activities (Terr, 2003). Victims might also exhibit regressive behaviors such as enuresis, encopresis, and thumb sucking (Roberts & Kaysen, 2011; Odhayani, Watson, & Watson, 2013; Perrin et. al., 2000). The DSM-5 has made modifications, which have attempted to compensate for the gaps in

symptom presentation in children and adolescents in the DSM-IV (Dauber, Lotsos, & Pulido, 2015; Kilpatrick et al., 2013). Therefore, a study designed to examine presenting symptoms of PTSD based on the results from the diagnosis made using the DSM-5 among sexually assaulted children is warranted (Carragher, 2016; Dauber et al., 2015; Maniglio, 2014).

Difficulty Accurately Diagnosing PTSD in Children

Previous researchers found that several problems exist when attempting to propose effective treatment for sexually abused children with PTSD (Carragher, 2016; Putnam, 2009; De Arellano et al., 2008). Children impacted by sexual trauma might display anger, anxiety, hypervigilance, disruption in sleep, and depression that are often not identified by current assessments (Maniglio, 2014; Terr, 2003). Authors proposed the accuracy of implementing an effective treatment strategy might be also compromised due to the uncertainty or vagueness of PTSD diagnostic criteria in the DSM-IV (Dauber et al., 2015; Leigh et al., 2015; Maniglio, 2014). Putnam (2009) emphasized that an incorrect diagnosis is not useful because the diagnosis determines which treatment intervention is implemented. Putnam (2009), Terr (2003), and Ruiz (2016) also agree that victim's symptoms must be accurately identified to develop an effective treatment model.

An analysis of research articles showed that an abused child's trauma symptoms create difficulty for mental health practitioners to provide an accurate diagnosis (Leigh et al., 2015; Putnam, 2009). A number of researchers have claimed that the symptoms of anxiety and attention-deficit and disruptive behavior disorders, according to the criteria in

the DSM-IV, have caused confusion among mental health therapists, clients, and family members because of their overlapping symptoms (Kilpatrick et al., 2013; Scheeringa, Putnam, & Zeanah, 2012). Children diagnosed with other psychiatric illnesses (e.g. oppositional defiant disorder, adjustment disorder, disruptive mood dysregulation disorder, and anxiety, etc.) are not appropriately treated when their true underlying issue might be PTSD. These overlaps certainly contribute to the misdiagnosis and subsequent ineffective treatment of children with PTSD, and the misdirected approach to treatment can have adverse effects on victims (Putnam, 2009; Scheeringa et al., 2012). For example, the treatment protocol used to reduce the symptoms of ADHD, such as administering a stimulant, might have grave consequences on the well-being of a client who has PTSD (De Arellano et al., 2008; Scheeringa et al., 2012). Psychologists, physicians, and mental health therapists have explored the problem of misdiagnosing clients (Carragher, 2016: Putnam, 2009: De Arellano et al., 2008). Not diagnosing victims correctly contributes to the inability of physicians and the mental health community to adequately treat childhood PTSD (Carragher, 2016: Putnam, 2009: De Arellano et al., 2008).

Psychological and pharmacological treatments of PTSD can produce a meaningful reduction in distress (Carragher, 2016). However, appropriate treatment is administered only if a correct compilation of a victim’s symptoms is established (Leigh et al., 2015). Few researchers designed studies that examine the issue of gender, ethnicity, and PTSD among sexually assaulted children according to the new DSM-5 criteria

(Dauber et al., 2015). Therefore, my study is important because approximately one in four youth will experience sexual trauma during his or her developmental years (Duke et al., 2010). My research study addresses the gap in studies of PTSD based on the results from the diagnosis made using the DSM-5 in terms of gender and ethnicity after controlling for socioeconomic level (median household income) and home environment (biological parents or foster home).

Ethnicity and PTSD

The predominant values of White middle-class communities determine the standards used in trauma response, counseling, and therapy (De Arellano et al., 2008; Roberts et al., 2011; Garcia et al., 2016). Research has shown clients from ethnic minority groups are the least likely to make use of counseling services (Else-Quest, Higgins, Allison, & Morton, 2012). Unfortunately, there also is evidence implicating a relationship between ethnic minority status and increased risk for PTSD (Cougle, Kilpatrick, & Resnick, 2012). For example, Cougle et al. (2012) interviewed a sample of victims from Hurricane Andrew after six months and found there was a definite difference in prevalence of PTSD among ethnic groups (Julia, Perilla, Norris, & Lavizzo, 2002). The results showed that Hispanic victims in the affected Florida communities had the highest rates of PTSD (Julia et al., 2002). Additionally, Julia et al. (2002) conducted an additional differential exposure and differential vulnerability analysis to trauma symptomology. However, neither explanation between the differential exposure and differential vulnerability entirely accounted for the ethnic differences. A limitation of

this study concerned the novice interviewers who used a short, standardized scale instead of a longer more detailed scale.

In light of what is in the literature, it is clear that counselors should consider addressing ethnicity by becoming more cognizant of other cultures (Garcia et al., 2016; Julia et al., 200; Ruiz, 2016). Further, other researchers agree that new techniques are essential for mental health professionals when treating minorities and their cultures (De Arellano et al., 2008; Roberts et al., 2011; Layne et al., 2014). New theories about trauma and ethnicity are studied and modified to establish new strategies and interventions for traumatized children (Julia et al., 2002; Layne et al., 2014; Roberts et al., 2011).

Gender differences and PTSD

Studies using the TSCC reported victims of child sexual abuse are at least twice as likely to be female than male (Briere & Runtz, 1993; Pritchard, 2013; Van der Kolk & McFarlane, 2012). Other researchers agree that men account for at least 20% to 29% of child victims (Pritchard, 2013; Pereda, Guilera, Forns, & Gómez-Benito, 2009). Studies consistently indicate that males are more likely than females to delay disclosure primarily due to feelings of shame and fear of stigma associated with their sexuality (Pereda et al., 2009; Holmes et al., 1977).

Recent investigations into the relationship between a child's gender and PTSD symptomology related to sexual abuse have revealed some significant findings (Dauber et al., 2015; Kerig & Becker, 2012; Ruiz, 2016). Female victims reported higher rates of

depression, anxiety, and re-experiencing symptoms of PTSD, but not avoidance and hyperarousal symptoms (Rhoads, 2015; Holmes et al., 1977). However, the synthesis of information also emphasizes the need to accurately assess and diagnose sexually abused children from a gender perspective (Dauber et al., 2015; Holmes et al., 1977; Kerig & Becker, 2011; Roberts et al., 2011). Clinicians, child advocates, child protection teams, and communities that incorporate a gender perspective might understand the need for specific mental health services (Carragher, 2016; Kerig & Becker, 2011; Roberts et al., 2011; Ruiz, 2016). For instance, females are more likely to direct anger toward themselves than toward others (Holmes et al., 1977). Such self-directed anger manifests in the form of self-injurious behaviors (Holmes et al., 1977.) In addition, Rhoads' (2015) recent research recognized differential responses in gender to cognitive behavior therapy for PTSD. These findings are consistent with evidence that females recall emotional memories and retain extinction memories more strongly than do males, which may increase emotional healing and long-term treatment gains (Holmes et al., 1977; Rhoads, 2015). Therefore, before a new model or position is considered, it is beneficial to analyze how mental health professionals recognize PTSD and its related symptoms.

Furthermore, regardless of whether the sexual abuser is male or female, male victims more often than female victims are confronted with sexual confusion (Holmes et al., 1977; Porter, 1986). If the abuser is a woman, the sexual confusion results from the fear or lack of response to the sexual experience and may cause him to question his sexuality (Holmes et al., 1977; Porter, 1986). The male victim might also believe that he

should have been able to protect himself against abuse by a female. Thus, the harm may come to reflect weakness or inadequacy, and the victim may question his masculinity (Holmes et al., 1977; Porter, 1986).

My understanding of the current information emphasizes the need to accurately assess and diagnose sexually abused children from a gender and ethnicity perspective while controlling for socioeconomic level (median household income) and home environment (biological parents or foster home). Challenges in assessing gender and ethnicity specific symptoms related to sexual assault have hindered the development of effective treatment modalities tailored to the victim (Maniglio, 2014; Scheeringa et al., 2012). These challenges include the under-representation of male subjects in many studies (Holmes et al., 1977; Kendall-Tackett et al., 1993; Wells et al., 1995). Further, researchers concur that the underreporting of male sexual assault poses a problem, as reliable and meaningful studies concerning differences in gender symptomology cannot be produced without considering male victims (Holmes et al., 1977; Kendall-Tackett et al., 1993; Wells et al., 1995; Pritchard, 2013). Pritchard (2013) additionally proposed that male victims often question their sexuality and self-identity when they disclose sexual assault. However, researchers have begun to explore gender differences as more male victims present for treatment (Kendall-Tackett et al., 1993; Pritchard, 2013; Wells et al., 1995).

Although gender differences among child sexual abuse victims have received some attention recently, another challenge exists within this research because most of it

reflects men's and women's perceptions of sexual assaults that happened to them as children (Briere & Runtz, 1993; Pritchard, 2013; Van der Kolk & McFarlane, 2012). In other words, the research was not conducted on actual children undergoing treatment for sexual assault related PTSD. An adult's memories of childhood abuse might not reflect an accurate depiction of what took place when they were a child (Holmes et al., 1977; Briere & Runtz, 1993). The passage of time might have distorted an adult victim's recollection of their trauma. Therefore, it is important to research child sexual abuse-induced PTSD among actual children. Conducting research on children is arguably more accurate because the details of their distressful experience are revealed within a shorter timeframe.

Family Income as a Socioeconomic Factor

Williams and Boushey (2010) conducted an analysis that reported family conflict differed considerably between low, middle- and upper-income levels. Griggs, Casper, and Eby (2013) studied a group of low-income families and their work–family conflict in a sample of low-income workers. Griggs et al. (2013) posited that low-income families were determined a risk factor as they had less resources when managing family circumstances related to raising children. In addition, Griggs et al. reported that low income families are necessary to address as they lack access to healthcare, childcare, and scheduling inflexibility that may contribute to childhood trauma (Griggs et al., 2013; Williams and Boushey, 2010).

In a more recent study, data among 22,575 delinquent youth referred to the Florida Department of Juvenile Justice were analyzed. Childhood trauma, abuse, neglect, and criminal behavior were reported risk factors concerning youth referred to the Florida Department of Juvenile Justice. Fox, Perez, Cass, Baglivio, and Epps (2015) found a significant variation in annual household income between justice involved youth who meet the criteria for PTSD and their counterparts. The juvenile offenders were more likely to experience trauma and tend to come from poorer families (Fox et al., 2015). The reviewed studies are significant to my literature search as research shows that 90% of juvenile offenders in the United States experience some sort of traumatic event in childhood and up to 30% of justice-involved American youth actually meet the criteria for post-traumatic stress disorder due to trauma experienced during childhood (Dierkhising et al., 2013).

Reiss (2013) conduced a review of literature on the relationships between socioeconomic status and mental health outcomes among youth from 4 to 18 years of age. Reiss included publications in English or German from 1990 to 2011 that identified a relationship between socioeconomic status and mental health problems. An inverse relationship between socioeconomic status and mental health problems occurred where disadvantaged children and adolescents were two to three times more likely to develop mental health problems (Reiss, 2013). A commonality among the studies indicated low socioeconomic status was related to higher rates of mental health problems (Reiss, 2013). Likewise, a decrease in socioeconomic status was associated with increasing mental

health problems (Reiss, 2013). Socioeconomic status can be obtained from census data available to the public and has been used in many studies as patient home addresses are routinely collected and updated by health care providers (Berkowitz et al, 2015: Wen, Attenello, He, 2014).

Biological Parent versus Foster Care as Family Environment Factor

In addition to my analysis of gender and ethnicity data concerning children with PTSD symptoms, I also address a limitation of the Ruiz (2016) study by examining the potential effect of family environment on symptom severity. I take into consideration the effect of foster care versus biological parent influence on PTSD symptom severity. According to the U.S. Department of Health and, there remains an increasing number of children who enter into foster care since 2012. Between October 1, 2012 and September 30, 2013 an estimated 254,904 children in the United States entered foster care whereas 402,378 children were in foster care at the end of September 2013 (U.S. Department of Health and Human Services, 2014). It is also estimated that 6% of U.S. children spend time in foster care between the ages of birth to 18 years (U.S. Department of Health and Human Services, 2014).

McMillen et al. (2005) researched the prevalence of psychiatric disorders among children in the foster care system and concluded they possess high rates of psychiatric disorders. Using a child welfare database, McMillen et al. identified a foster child's traumatic experiences and their trauma related symptoms. McMillen et al. concluded a relationship between mental health symptoms and a traumatized child's relationship to

their environmental experiences. Authors agree that the placement of children into foster care may cause more trauma than the experienced maltreatment or abuse that caused the removal from their home (McMillen et al., 2005).

Evidenced Based Treatment Interventions for PTSD

Competency guidelines for working with traumatized children propose that mental health professionals incorporate evidenced based models (Rubin & Babbie, 2016). However, extensive knowledge concerning trauma is not a fundamental component of the standard curricula in master's level counseling programs (Rubin & Babbie, 2016). There is a critical need for training in evidenced based interventions and practices for professionals who treat sexually assaulted children (Cohen et al., 2016). There is also a need to ensure continuity of care and promote the participation in program development and implementation. Therefore, evidenced based treatment modalities such as Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) and Cognitive Behavioral Therapy (CBT) were designed specifically for children who experienced trauma (Cohen et al., 2010; Rubin & Babbie, 2016).

Trauma-Focused Cognitive Behavioral Therapy

Trauma focused cognitive behavioral therapy is a psychotherapy strategy that is used for children and adolescents who are experiencing substantial emotional and behavioral difficulties related to traumatic life circumstances (Cohen et al., 2010; Rubin & Babbie, 2016). These interventions encourage children to share their traumatic experiences to modify their inaccurate or unhelpful trauma-related thoughts (Cohen et al.,

2010). However, this therapy lacks specific intervention strategies that pertain to the gender of the client. The therapy has been used by most of the practitioners who provide counseling services to sexually assaulted children with PTSD (Cohen et al., 2010).

Although TF-CBT interventions have been proven to decrease symptoms, mental health professionals are still not aware of whether male or female victims benefit more from such interventions (Cohen et al., 2010). Furthermore, TF-CBT interventions do not specifically address symptoms more common to male or female victims (Cohen et al., 2010). Patton and Morgan (2002) studied the effects of single-gender programming. This study examined the different mental health programs available to Central Valley incarcerated girls in the juvenile facilities. The programs were examined for gender-responsiveness. They observed that if girls are included in a co-ed treatment program that the group dynamic changes. Girls in co-ed groups tend to participate less and receive less staff time and support (Patton & Morgan, 2002)

Therefore, research using TF-CBT is needed to help differentiate between the symptoms experienced by males and females who are victims of sexual assault. Knowing how males and females and different ethnicities experience symptoms could lead to treatment protocols that are more efficient in decreasing a victim's PTSD symptoms. As a result, TF-CBT culturally responsive treatment interventions specific to gender and ethnicity might produce better outcomes (Roberts et al., 2011). However, until clear differences in symptomology are established, providers should be cautious about making assumptions about which treatment method is more efficient.

Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) is effective because it helps individuals focus on identifying unproductive thoughts and how these thoughts contribute to their feelings (Warren, 2008). During cognitive behavioral therapy, a therapist, and individual work together to implement change in the client's thought processes (Friedberg & McClure, 2015). This change is necessary as these ideas and behaviors contribute to an individual's negative thoughts, which might exacerbate their symptoms. The Society for Traumatic Stress Studies proposes that cognitive-behavioral approaches have the strongest empirical evidence for efficacy in resolving many unwanted symptoms in children (Putnam, 2009). However, cognitive behavioral intervention strategies are not specific to decreasing trauma symptoms and need to be frequently practiced for an extended period to be effective (Friedberg & McClure, 2015). The extensive time involved might be a disadvantage because victims and their caregivers are required to attend therapy treatment sessions consistently over at least a four-to-six- month period in order to lessen symptoms (Friedberg & McClure, 2015; Putnam, 2009). However, the constant repetition of strategies used with this intervention allows permanent change to occur in victims (Friedberg & McClure, 2015; Putnam, 2009).

Counselor Self-Efficacy in Assessment versus Treatment

Counselor self-efficacy in assessment and treatment are related but need to be addressed distinctly as assessments lead to treatment issues. The emphasis of my study is on assessment rather than treatment efficacy. If the assessments used are not addressed

and an appropriate diagnosis made, the effectiveness of the treatment approach is hindered, regardless of the type of treatment. Research has been conducted to evaluate a counselor's feelings of efficacy when working with children exposed to sexual assault (Garcia et al., 2016; Layne et al., 2014). Counselors with specialized training in trauma assessment reported less burnout than those providers who did not have specialized training (Garcia et al., 2016). Training for mental health providers related to Hispanic children diagnosed with PTSD increased counselor self-efficacy while also reducing provider burnout (Garcia et al., 2016). Garcia et al. (2016) proposed a Culture-Specific Information Intervention Template, and Treatment Protocol Classification System. However, Garcia et al. suggested further research is warranted using the TSCC to measure PTSD symptoms among sexually assaulted Hispanic children.

Julia et al. (2002) and Layne et al. (2014) contended that when counselors apply the same interventions to any victim's symptoms regardless of ethnic context, bias is inevitable. For this reason, a counselor's immediate intervention should be guided by practice principles, education, and professional training to increase effectiveness (Layne et al., 2014). There is evidence of ethnic bias in counseling, but much of it is unintentionally done by people who consider themselves to be ethical (Ridley, 2011). An unbiased regard for other cultural values helps contribute to a counselor's awareness and knowledge of ethnic differences in symptomology. Without a better understanding of specific ethnic related symptoms of PTSD, counselors might feel uncertain about

assessing for trauma and implementing effective treatment (Julia et al., 2002; Layne et al., 2014).

I argue that effective recognition of symptomology related to victims of sexual assault should entail ethnic as well as gender-specific assessments. These valuations should focus on the differences between a victim's gender and their social roles and responsibilities, use of resources, history of trauma, and reasons for interaction with the juvenile justice system (Holmes et al., 1977; Maniglio, 2014; Rhoads, 2015; Scheeringa et al., 2012). Furthermore, gender-specific programs increase counselor self-efficacy by making training more appropriate to the specific needs of male and female victims and ensuring that a mental health provider's efforts do not create, maintain, or reinforce detrimental gender role expectations (Holmes et al., 1977; Maniglio, 2014; Rhoads, 2015; Scheeringa et al., 2012).

This current study also indicates the need for training of mental health providers to consider assessment modalities that focus on differences in PTSD symptomology experienced by male and female sexually assaulted children. It is not surprising that a better understanding of PTSD symptoms in relation to gender and ethnicity after controlling for socioeconomic level (median household income) and home environment (biological parents or foster home) could have significant implications for new treatment methods (Arredondo & Perez, 2006; Garcia et al., 2016; Layne et al., 2014). Unfortunately, pediatricians who receive little training in childhood behavioral disorders (Connor, Ford, Arnsten, & Greene, 2015) treat most traumatized children. Although half

of a standard practice involves behavior problems, most pediatricians receive limited training in these issues (Connor et al., 2015). Therefore, further research investigating PTSD symptom expression is warranted (Carragher, 2016; Kerig & Becker, 2012; Layne et al., 2014).

Summary

In summary, my review of the literature on child sexual assault included current research and findings concerning children with PTSD. However, mental health professionals are still not aware of whether male or female victims present with different symptoms of PTSD and how this would define treatment differently (Cohen et al., 2010). Additionally, I reviewed the various theoretical models that are most relevant to understanding PTSD in terms of gender and ethnicity and found that Bronfenbrenner's (2009) ecological systems theory gives an original perspective and incorporates deep knowledge that cultivates a better understanding of the sequence of developmental stages and how they affect traumatized youth. The ecological system theory is widely used by researchers, professionals, and educators because it provides a set of connectors that show how a distressful event can affect all aspects of a child's life (Bronfenbrenner, 2009). In addition, I described TF-CBT and CBT as treatments of PTSD and children and found TF-CBT interventions do not specifically address symptoms more common to male, female, and ethnically diverse victims (Cohen et al., 2010) and cognitive behavioral intervention strategies are not specific to decreasing trauma symptoms (Friedberg & McClure, 2015). I also addressed the gap in gender and ethnic specific research studies

pertaining to sexual assault in children with PTSD and found further research is warranted considering a child's socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home). Ultimately, my review of literature supported my rationale that additional research is needed concerning symptoms of PTSD in relation to gender and ethnicity after controlling for socioeconomic level (median household income) and home environment (biological parents or foster home).

The results of my literature review show that my investigation of young victims of sexual trauma is necessary to understand how different pathways to recovery might be explored once more is known about the gender and ethnic differences in expression of symptoms, as supported by suggestions by Connor et al. (2015) and others. Therefore, the methodology to address the gap in literature will use a multiple regression quantitative model to examine the severity of symptoms given a diagnosis of PTSD. The objective is to determine if there are differences between PTSD symptom severity according to ethnicity, gender, and age after controlling for the influence of a vector of confounding variables categorized as demographic (age, foster care versus biological parent) and socioeconomic (income group based on median household income).

Chapter 3: Research Methods

Introduction

In this retrospective, quantitative study, I used secondary data to analyze the symptoms of PTSD among male and female children who were Hispanic or Latino or non-Hispanic or Latino who were referred to a mental health agency. The purpose of this quantitative study was to examine gender and ethnic differences, while controlling for the influence of socioeconomic level (median household income) and home environment (biological parents or foster home) in the expressed symptomology associated with sexual trauma and a diagnosis of PTSD made using the DSM-5. This secondary data had already been gathered by qualified professionals using the TSCC, developed by John Briere et al. (2001). The data I collated included symptoms exhibited among children from the ages of 8 to 16 who had been referred to the agency for a mental health evaluation. I analyzed the data by comparing the symptom severity among the male and female victims, as well as Hispanic or Latino versus non-Hispanic or non-Latino victims.

In this chapter, I will review the research design and its connection to the research questions. First, I describe the methodology of the study with enough detail so that other researchers can replicate the study. I focus attention on the specific procedures relevant to conducting a retrospective review of charts. Next, I examine the variables and their operational definitions. The data analysis plan describes in detail all aspects of the analysis. Finally, I examine the possible threats to validity and ethical procedures.

Research Design and Rationale

The dataset contained raw and *t*-scores indicating the presence and severity of eight clinical scales shown to be associated with exposure to maltreatment: anger, post-traumatic stress, dissociation, sexual concerns, anxiety, depression, sexual preoccupation, and sexual distress as measured by the TSCC (Briere et al., 2001). I analyzed the measured severity (the continuous *t*-score) of each symptom which are the outcome variables. The statistical analysis was conducted in two phases. First, I calculated means, standard deviations, and frequency distributions and I compared males and females using a simple comparison of means and proportions. The male group of participants were compared to the female group using a simple comparison of means and proportions. I conducted two-sample *t*-tests (male versus female and Hispanic/Latino versus non-Hispanic/non-Latino) to examine statistical differences prior to controlling for confounding influences of demographic and socioeconomic factors.

In the second phase of the analysis, I used multiple regression models using the least squares method to more closely examine the severity of particular symptoms given a diagnosis of PTSD. The objective was to determine if any gender, ethnicity, zip code, and home environment predict trauma symptom severity.

The purpose of this retrospective research design was to collect, verify, and synthesize information from the past to establish facts that supported or rebutted my hypothesis. This quantitative study uses secondary sources of official records from an agency that treats children with PTSD symptoms.

Methodology

Population

The target population for this research study involved all children treated for sexual abuse aged 8 to 16 years who received services from a large mental health agency in Central Florida area specializing in the assessment and treatment of childhood sexual abuse. I am currently employed by the agency. My relationship with the agency helped me access highly protected mental health information. For the data to be considered for use in the study, the victims had to experience sexual assault and be diagnosed with PTSD.

Sampling Method

The primary data source for the analysis was the My Evolv database from the Children's Home Society (CHS) in Florida. CHS is one of the largest mental health providers in the Florida. The agency provides mental health services to approximately 20,000 children annually throughout the state. The method of assigning cases to a mental health agency is unknown. It is not random but most likely based on prior relationships between the assigning community-based institution and the mental health provider. Therefore, it is a convenience sample.

The CHS database contains demographic, diagnostic, and family background characteristics of children referred to the agency. Demographic characteristics including age, gender, race, and ethnicity; diagnosis codes are recorded using the International Classification of Diseases, 10th Clinical Modification (ICD-10CM); family background

characteristics include whether the child resides with his/her biological or foster care parents. It is important to note that gender is reported as a binary category. The form only gave a choice of male or female. The agency's archival data only recorded the client's gender as male or female. In addition to the CHS data, I used publicly available data from the Internal Revenue Service to approximate socionomic level based on the zip code of residence. Previous studies have examined ZIP codes to provide insight into how household median income relates to health care disparities in the social sciences (Berkowitz et al, 2015: Wen, Attenello, He, 2014).

I used G*Power statistical software to conduct an *a priori* analysis to compute required sample size for this study where the total sample size required is 98. The power analysis helped inform an estimate about sample size before this study began. However, I conducted a study using archival data and I did not have complete control over sample size. The power analysis indicated a power to detect effects of various size. A multiple regression automatically generates an effect size which is the *f*-squared value entered into the power analysis. Therefore, the sample will detect effect size at f^2=0.15. This effect is not presented for justification, but as information about the limitations concerning the conclusions of this study. Aberson (2015) reported there is a standard for sociological studies to use .80 for power. This power is practical as it reflects concerns over optimal balance of sample size and power (Aberson, 2015). The most common estimate of power in the behavioral sciences is internal consistency (Aberson, 2015). The most common

estimate of Cronbach's alpha ranges from 0-1.0 with 1.0 indicating perfect reliability (Aberson, 2015). I accepted a higher alpha level of .05 instead of .01.

A linear multiple regression with six independent variables, including the two primary treatment variables of interest, gender, and ethnicity were used to calculate sample size. The *F*-test treated demographic (age, foster care versus biological parent) and socioeconomic level (median household income) as other covariates in the model. To verify the integrity of the secondary data received from the agency, means and ranges was compared to published national averages to further determine integrity of the data. In addition, I selected cases over a specific time frame where data that were gathered over a period can be reviewed at once. Reviewing the data was advantageous because I gathered information from cases where the harmful effects to this population cannot be randomized.

Procedures for Recruitment and Participation of Archival Data

This retrospective review of children's records was conducted to investigate a victim's trauma symptoms. This secondary data has already been gathered by qualified professionals at an agency using the TSCC, developed by John Briere and published by Psychological Assessment Resources in 2001 (Briere et al., 2001). PTSD symptoms were quantified among the children from the ages of 8 to 16, who were referred to the agency for mental health services.

All families participating in this study took part in an initial intake session at the mental health agency. Trained intake clinicians whose level of education ranged from the

master's level to the doctoral level conducted all clinical interviews. The intake interview took approximately 2 hours to complete. The intake clinician met with the caregiver and child to collect information about the child and family. This process consisted of the TSCC. The client answered questions on the TSCC with the help of the intake clinician. In addition, I used a uniform set of questions so that the information was collected in a standardized format.

Intake clinicians obtained informed consent from all caregivers before the information about their child being entered into the agency's database. The caregivers were made aware that the client's clinical information may be used for research purposes with anonymity maintained. Only data from parents who signed the informed consent form were included in the database. Client confidentiality was further protected by assigning each child a code number by which they were identified. Thus, neither the client's s names nor other identifying information was included in the archival database. When there was a problem with missing or conflicting data, uniform handling of data was strictly followed. A sensitivity analysis was performed if the number of missing data was significant.

Procedures for Gaining Access to Archival Data

The participants sign an informed consent document during the intake or admitting process to the outpatient mental health program. This consent was for treatment and for the participant's information to be used for data and research purposes. I completed a background check through CHS as the data collection involves children.

In addition, I entered into a Business Associate Agreement to use/disclose a limited data set, which sets out specific parameters for use of the data and clear acknowledgment that the data will not be used to identify or contact participants. A Waiver of HIPAA authorization was obtained (i.e., waiver of the requirement to obtain consent from each participant to look at their health information for research purposes as it has already been obtained by the agency). The Children's Home Society is a secured access facility requiring the use of two locked doors to enter. All visitors are escorted while in the center.

The data elements did not allow identification of the actual participants as a code number for each client was assigned by the agency. I did not have the ability to identify or contact the participants. The study population was identified using Current Procedural Terminology (CPT-4) codes and International Classification of Mental Disorders (ICD-10) codes. I collected the data on the variables of interest and transferred it to a database for analysis. The data transfer was conducted by licensed clinical counselors and was masked and password protected on a secured server. This is a secondary data analysis of an existing data set. Therefore, the participants did not undergo any new procedures.

I did not have any contact with the vulnerable population I studied. The data was stored on a password protected computer system that used hardware level encryption to protect the data at rest. Evolv software was used by the agency's computer system to provide access to desktops meaning the data never left the confines of the center. I conducted my study by the Privacy Rule of the Health Insurance Portability and

Accountability Act. This act protects the confidentiality rights of individuals. I did not anticipate this would create issues for me, as the data I abstracted did not have any identifying information.

Instrumentation

The diagnosis of PTSD was made using the DSM-5 criteria. However, the presence of specific symptoms was derived from the TSCC, which was administered to adolescent and child victims of sexual assault. Specifically, the TSCC (Briere, 1996) was used to assess a child's trauma symptoms during the intake session at a mental health agency in Florida that provides services for sexually assaulted children with PTSD. The TSCC is a 54-item self-report measure designed to assess the presence and severity of specific symptoms associated with traumatic experiences in children from ages 8 to 16 (Briere, 1996). The TSCC is intended for children and adolescents who have experienced traumatic events (Briere, 1996). The measure utilizes a 4-point response format, asking the victim to rate behaviors as 0 ("it never happens"), 1 ("sometimes happens"), 2 ("happens lots of times"), and 3 ("happens almost all the time"; Briere, 1996)

The TSCC consists of two validity scales (underresponse and hyperresponse), and six clinical scales (anxiety, depression, anger, post-traumatic stress, dissociation, and sexual concerns). *T*-scores are used to interpret the child's level of symptomatology. As recommended by Briere (1996), I excluded summaries with under responsive scores of T = 70 as invalid. *T*-scores at or above 65 are considered clinically significant, scores

between 60 and 65 are considered borderline, and *T*-scores less than 60 are considered non-clinical (Briere, 1996).

Moreover, the TSCC test instrument that measures PTSD is valid and reliable (Briere, 2001). Elliot and Briere (1994) found that sexually abused boys and girls (*N* = 355) scored higher on each of the TSCC clinical scales than did non-abused children. Another study revealed that three TSCC scales (post-traumatic stress, depression, and anger) were found to be more effective in discriminating between sexually abused girls (*N* - 81) and non-abused girls (*N* - 151) than other instruments (Diaz, 1994). For samples obtained from child abuse centers, overall alpha coefficients for the clinical scales ranged from .81 to .86 (Mean alpha = .84; Briere, 1996).

Reliability analysis of the TSCC scales in a normative sample demonstrated high internal consistency for five of the six clinical scales alpha's range from .82 to .89. The remaining clinical scale, sexual concern was moderately reliable where alpha =.77. The four clinical subscales varied in reliability with DIS-O and SC-P having relatively high internal consistency alphas of .81 and the shorter DIS-F and SC-D scales were less reliable alphas of .58 and .64. The two validity scales UND and HYP had coefficients of .85 and .66.

Content validity was addressed by consultation with clinicians who specialized in the treatment of traumatized children, 21 items were ultimately discarded as redundant or less meaningful indicators of the domains of interest. The 54 items of the resultant measure were then included in several studies of child abuse impacts (Elliot & Briere,

1994; Friedrich, 1991; Lanktree & Briere, 1995b), where reliability and validity analyses suggested no further need for scale refinement (Briere, 1996).

Several researchers have examined the convergent and discriminant validity of the TSCC. In a sample of sexually abused children, Crouch, Smith, Ezzell, and Saunders (1999) found support for the convergent and discriminant validity between the TSCC and the Children's Impact of Traumatic Events Scale–Revised where correlations in a child abuse center sample ranged from 51-66. In addition, convergent and discriminant validity was established by analyses of covariance with other available measures. TSCC scales correlated most with scales of similar content (concurrent validity) and least with scales of less similar content (discriminant validity).

Operationalization of Variables

This section discusses the theoretical justification for the included model variables, in addition to the primary independent and dependent variables of interest. The predictor variables of interest for this research study are gender and ethnicity. The outcome variables are the self-reported presence of the child's symptoms such as anxiety, depression, sexual concerns, post-traumatic stress, anger, and dissociation.

A victim's anxiety is characterized by feelings of worry, hyperarousal, and generalized anxiety (Forkey et al., 2016). Anger is also a respondent variable that is described as angry thoughts, feelings, and behaviors (Forkey et al., 2016). Depression as a victim's responsive variable indicates feelings of sadness, loneliness, and unhappiness (Forkey et al., 2016). Post-traumatic stress indicates intrusive thoughts, sensations, and

memories of the trauma (Forkey et al., 2016). Another respondent variable is dissociation where the victims feel a reduced responsivity, emotional detachment, and cognitive avoidance of negative affect (Forkey et al., 2016). Dissociation is defined as pretending to be someone else or somewhere else, fantasy, and daydreaming (Forkey et al., 2016). Sexual Concerns indicates sexual distress and preoccupations (Forkey et al., 2016).

Client age is included in the model because children in different developmental stages react differently to trauma. Bronfenbrenner's model (2009) emphasize that certain familial relationships change as a result of exposure to trauma, and the relationships also impact trauma symptoms over time. In addition, family dysfunction may counteract positive coping mechanisms needed during critical developmental stages (Folk et al., 2014). However, client age is not expected to influence symptom presence linearly, therefore the model will include two age variables indicating approximate middle-school (12–14 years) and high-school age (15–16 years). The elementary school age group (ages 8–11) will serve as the control group for these variables.

The second demographic variable indicates whether the clients reside (value of one) with their biological versus another guardian (value of zero). Children living with their biological parents may benefit from different community support systems and may not experience the potential trauma due to separation from their biological parents (Folk et al., 2014). Folk et al. (2014) reported family relationships expose youths to experiences that may promote or negate their capacity to cope with stress associated with

traumatic events. Therefore, children raised by their biological parents are expected to develop less severe clinically significant symptoms of PTSD.

Socioeconomic status (SES) is also expected to affect how a child reacts to stressors. Higher income levels are likely associated with greater access to resources and, by extension, the probability of PTSD (Griggs et al., 2013). Because actual family income is not available in the data, the Internal Revenue Service zip-code median household income will be used to approximate socioeconomic status. My study will use median household income or percent living in poverty from ZIP code data that offers a simple way to provide insight on the impact of inequalities effecting sexually assaulted children (Berkowitz et al, 2015: Wen, Attenello, & He, 2014).

Data Analysis Plan

In this retrospective study, I assessed for possible differences in symptomatology presentation among the dichotomous independent variables gender and ethnicity. I used the SAS software that offers several options for estimating multiple regression with archival data. For the main analysis, I examined gender and ethnicity concerning the probability of PTSD symptom presentation after controlling for the influence of other factors categorized as demographic (age, foster care versus biological parent) and socioeconomic (income group based on median household income).

Research Questions

The research questions for this study on the expressed symptomology of sexually assaulted children diagnosed with PTSD were as follows:

RQ1: Do gender and ethnicity among sexually traumatized children diagnosed with PTSD predict symptom severity as measured by the TSCC after controlling for the socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home)?

H_0: Gender and Hispanic ethnicity among sexually traumatized children do not predict symptom severity as measured by the TSCC, after controlling for the socioeconomic level and home environment.

H_1: Gender and ethnicity among sexually traumatized children diagnosed with PTSD predict symptom severity as measured by the TSCC after controlling for the socioeconomic level and home environment?

I hypothesize that male victims would score significantly higher than females on the TSCC anger and sexual concern scales and that females would score higher than males on the depression, anxiety, PTSD, and dissociation scales. The reviewed literature suggested that male victims experience more externalizing symptoms and females experience more internalizing symptoms associated with their sexual assault trauma (Carragher, 2016; Friedman et al., 2011; Foster, Kuperminc, & Price, 2004; Leigh, Yule & Smith, 2015; McCall-Hosenfeld, Winter, Heeren, & Liebschutz, 2014).

Threats to Validity

Retrospective research studies utilize data that was previously collected. It is an inexpensive and convenient way to collect data, as the IRB often exempts this type of study from a rigorous review as there is usually no contact with the subjects of the study.

The retrospective design limits the researcher's ability to determine cause and effect. However, this design is used by many researchers in the field because the data can be used over and over to study different research problems or to replicate a previous study. Additionally, I adjusted my study for the assumption that some data might be missing from the client's records, as Creswell (2009) suggested. In addition, due to the lack of control over external variables, archival research studies that analyze data are weak about the demands of internal validity.

Ethical Procedures

Due to the research design of data review, ethical concerns appear to be minimal. The study focused on the outcomes from the data review and not corresponding information of the sexually assaulted victims. Ethical concerns regarding access to the data were mitigated by the contract written stating client information would be kept confidential, and the information would only be utilized for this study. No other access to confidential information was obtained or used in the study other than the variables being researched. Anyone reviewing the records to assist in this study already had access to this information in other aspects of their employment at the agency.

I have a dual role in the research context as I am employed by the agency supplying the data. However, conflict of interest is strictly managed to ensure I reveal honest and accurate outcome. I will not reveal desired outcome due to my role as a clinical counselor. Anonymous data collection is the primary source of data to encourage honest outcome. The client data collected by the agency is the primary purpose where the

research proposed is the secondary purpose. The gatekeeper of the organization released the data to be used specifically for research purposes, via a Data Use Agreement. The gatekeeper of the organization will be notified via email of the study's results in a format that is audience-appropriate. A one to two-page summary presentation will deliver significant results of the study.

The agency supplying the data has policies to protect the privacy of patients' electronic information, including procedures for computer access and security. Identifiable patient information will be encrypted and not removed from the security of the healthcare institution. The researcher will not have the ability to identify or contact the participants. There is documentation of informed consent, de-identification of data elements, the creation of a limited data set and a data-use agreement. In addition, links will be destroyed as soon as possible.

In addition, security provisions were taken to protect this data during initial data collection, data transfer, and archiving (e.g., privacy envelopes, password protection, locks). There are also checks in place to facilitate accuracy of data collection. For instance, the data that will be used will be screened for accuracy and comprehensiveness by the agency. The data collected will appropriately address the research questions. To verify the integrity of the secondary data received from the agency, means and ranges were compared to published national averages to further determine integrity of the data. I am aware that the university's Office of Research Integrity and Compliance can audit the complete set of raw data at any time after IRB approval.

The data will be kept for five years after the final report has been submitted to satisfy the IRB requirements. It will be destroyed (deleted) upon completion of the analysis. I accept responsibility for the conduct and supervision of this research and protect human participants as required by state and federal law and regulation, and as documented in all applicable Federal-wide Assurances.

Summary

The purpose of my dissertation is to determine the extent of differences in the severity of PTSD symptoms among male and female sexually assaulted children. In addition, ethnicity was used as descriptive information as it relates to the same sample of victims. Data from a sample of children who were treated by a large mental health facility in Central Florida was analyzed for the purpose. In this chapter, I described the research design and its connection to the research questions. First, I described the methodology of the study with enough detail so that other researchers can replicate the study. I focused attention on the specific procedures relevant to conducting a retrospective review of charts. I also described the variables and their operational definitions, and details of the data analysis plan. The power analysis, which includes alpha level, effect size estimate, type of test, number of variables, and Beta were identified in power analysis program in order to yield a minimum sample size. Finally, I described the possible threats to validity and ethical procedures.

In chapter four I will describe statistical results of the study. I will also include tables and figures to illustrate results, as appropriate, and per the current edition of the Publication Manual of the American Psychological Association.

Chapter 4: Results

Introduction

The purpose of this retrospective quantitative study was to examine gender and ethnic differences, while controlling for the influence of socioeconomic level and home environment in the expressed symptomology associated with sexual trauma among youth with a DSM-5 diagnosis of PTSD. For the first phase, I conducted two-sample *t*-tests (male versus female and Hispanic/Latino versus non-Hispanic/non-Latino) to examine statistical differences prior to controlling for confounding influences of demographic and socioeconomic factors.

In the second phase of the analysis, I conducted a multiple regression method to more closely examine the severity of specific individual symptom domains given a diagnosis of PTSD. In this chapter, I discuss whether gender, ethnicity, socioeconomic level, and home environment predicted trauma symptom severity among sexually assaulted children from the ages of 8 to 16 who are referred to the agency for mental health services.

I compared the male group of participants' scores on the TSCC domains to the female group using a simple comparison of means and proportions. I analyzed the standard deviation between the two groups of sexually assaulted children. Next, I measured socioeconomic level by median household income of the ZIP code for participants' residence and home environment refers to whether participants lived with

their biological parents or in foster care. The specific symptoms of trauma analyzed were anger, anxiety, depression, dissociation, posttraumatic stress, and sexual concerns.

The research questions for this study on the expressed symptomology of sexually assaulted children diagnosed with PTSD were as follows:

RQ1: Do gender and ethnicity of sexually traumatized children diagnosed with PTSD predict symptom severity as measured by the TSCC after controlling for the socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home)?

H_0: Gender and Hispanic ethnicity of sexually traumatized children do not predict symptom severity as measured by the TSCC, after controlling for the socioeconomic level and home environment.

H_1: Gender and ethnicity of sexually traumatized children diagnosed with PTSD predict symptom severity as measured by the TSCC after controlling for the socioeconomic level and home environment?

Data Collection

The CHS database contained demographic, diagnosis, and family background characteristics of children referred to the agency. Demographic characteristics included age, gender, race, and ethnicity; diagnosis codes were recorded using the International Classification of Diseases, 10th Clinical Modification (ICD-10CM); family background characteristics include whether the child resides with their biological or foster care parents. The agency's archival data recorded the client's gender as male or female. In

addition to the CHS data, the analysis used publicly available data from the Internal Revenue Service to approximate socioeconomic level as the median income of the zip code of residence.

I used G*Power statistical software to conduct an a priori analysis to compute required sample size for this study; the algorithm indicates a minimum sample size of 98 is required to detect an effect size of F^2 =0.15. Because the analysis relies on archival data, I did not have complete control over sample size. The final sample size used in the current study was 126, which should provide a reasonable buffer allowing detection of smaller effects. All participants received the TSCC between 2014 and 2017. Collecting additional observations over the 98 minimum resulted in an increase of the proportion of male participants, thereby increasing the robustness of the estimation concerning gender. The multiple regression conducted in the second phase of the estimation automatically indicates the effect size for each variable included in the model as the estimated coefficient.

Originally, there were 2,038 records in the dataset. First, all duplicates were removed from the data, leaving 1,081 unique individuals. Second, I removed those participants who did not meet the age criteria, yielding 579 records. Third, I deleted cases with missing data elements for any of the variables used in the analysis, reducing the number of eligible records to 545. Finally, out of the 545 records, 126 individuals were identified as having completed the TSCC.

Results

Following a descriptive examination of the model variables, the statistical analysis consisted of two phases. In the first phase of the statistical analysis, I conducted two-sample *t*-tests to examine statistical differences between (a) male versus female participants and, separately, (b) Hispanic/Latino versus non-Hispanic/non-Latino participants. In the second phase, I used a linear multiple regression model to estimate the prediction of gender and ethnicity on the symptom severity of sexually traumatized children diagnosed with PTSD while controlling for the confounding influences of demographic and socioeconomic factors.

Gender options on the intake form identified participants as male or female. Although it is best practice to go beyond binary categories of gender, this limitation is worth noting. Binary categories of gender are a limitation as giving options beyond male and female for gender is prudent in social science research. Also, ethnicity on the intake form was only defined as Hispanic or Latino and non-Hispanic or Latino for the clients. As a result, wide varieties of ethnicities may have been included under the label "Hispanic." This is a limitation as there are significant differences among Puerto Ricans, Mexicans, Cubans, Central and South Americans.

I analyzed demographic characteristics such as age, gender, ethnicity, socioeconomic level (median household income approximated by ZIP code data), and home environment (biological parents or foster home) using means and standard deviations. The mean age of children with PTSD at intake was 12.9 years with a standard

deviation of 2.5. The median age was 13. Slightly over 20% of the children were elementary school age (6–10), 36% were middle school age (11–13), while 32.5% and 46.8% were respectively middle (11–13) and high school age (14–17). Almost three quarters 74.6% (*n* =93) of the participants were female and 14.29% (*n* =18) identified themselves as Hispanic. Eleven percent of the children in the sample were female and Hispanic. This study focused on the trauma symptoms of Hispanic or Latino and non-Hispanic or Latino as there were insufficient numbers of the other racial groups for data analysis.

Approximately 57.9% (*n* =72) of the children resided in a foster home. Slightly over 42% (*n* =55) were both female and residents of a foster home. Over half of children in the sample 57.14% (*n* =72) lived in a zip code with a median income in the lowest quintile. It is noteworthy that only 1.59% resided in a zip code with a median income in the highest quintile. A summary of the descriptive analyses is below.

Table 1

Descriptive Statistics for Model Variables

Variable		*SD*
Mean age & standard deviation	12.90	2.5
Median age	13.00	
Elementary school age (6–10)	20.64% (*n*=26)	
Middle school age (11–13)	32.54% (*n*=41)	
High school age (14–17)	46.80% (*n*=59)	
Female	74.60% (*n*=93)	
Hispanic	14.29% (*n*=18)	
Female & Hispanic	11.11% (*n*=14)	
Foster home	57.94% (*n*=72)	
Female & Foster home	42.86% (*n*=55)	
Socioeconomic Level		
Lowest	57.14% (*n*=72)	
Next to lowest	9.52% (*n*=12)	
Middle	23.81% (*n*=30)	
Next to highest	7.94% (*n*=10)	
Highest	1.59% (*n*=2)	

Note: SD = standard deviation

Two Sample Tests for Difference in Means

I conducted the Shapiro-Wilk test to determine whether the distributions of the outcome variables were normal. Additional tests, particularly the Kolmogorov-Smirnov, Cramer-von Mises, and Anderson Darling, corroborated the results. The results of the tests indicate that the distributions for anxiety ($p < 0.001$), depression ($p = 0.002$), anger ($p < 0.001$), PTSD ($p < 0.001$), dissociation ($p < 0.001$), and sexual concern ($p < 0.001$) are non-normal. To account for the non-normality, I employed a non-parametric test (Wilcoxon Two-Sample Test) to examine whether the difference between the means of

the two groups was significant. Table 2 contains the results from independent-sample *t*-tests, comparing the mean scores associated with the six outcome variables on the TSCC: anxiety, depression, anger, PTSD, dissociation, and sexual concern. The tests involved three groups. While the focus is on gender and ethnicity, a third test involved home environment to provide additional insight concerning the symptom severity for sexually traumatized children. Thus, I conducted two-sample *t*-tests to examine differences in symptom severity between (a) males versus females, (b) Hispanic/Latino versus non-Hispanic/Latino, and (c) children living in foster homes versus children living with their biological parent(s).

Based on the results, I determined that female children had statistically significant higher scores for anxiety, dissociation, and sexual concern ($p < 0.001$) compared to males. Therefore, providing preliminary evidence that gender of sexually traumatized children diagnosed with PTSD may help explain variation in the levels of anxiety, dissociation, and sexual concern severity as measured by the TSCC.

Concerning ethnicity, Hispanic/Latino and non-Hispanic or Latino children were statistically significant different only in terms of the PTSD score ($p = 0.015$) with non-Hispanic/Latino children having a statistically significant higher mean score. There were no statistically significant differences in symptoms of anxiety, depression, anger, dissociation, or sexual concern between Hispanic or Latino and non-Hispanic or non-Latino groups. The final set of independent-sample *t*-tests concerned foster home children versus their counterparts who reside with their biological parents. With the exception of

dissociation, foster home children had statistically significant higher scores for all dimensions ($p < 0.01$). The elevated scores suggest that home environment may be an important variable that helps explain the observed variation in symptom severity scores.

Table 2

Means and P-Values of two-sample t-tests comparing scores by gender, Hispanic ethnicity and foster home status

			Gender			Hispanic Ethnicity			Foster/Biological		
	Min	Max	F	M	*p*	Hisp	Non-Hisp	*p*	Foster	Bio	*P*
Anxiety	36	110	67.5	51.7	0.036*	63.6	62.8	0.936	74.6	48.2	<0.001*
Depres-sion	34	110	67.1	52.7	0.050*	63.5	63.0	0.955	74.4	48.4	<0.001*
Anger	34	107	61,2	70.3	0.228	63.4	63.9	0.958	68.9	55.9	0.050*
PTSD	34	110	65.8	56.7	0.223	65.3	52.9	0.187	76.6	45.5	<0.001*
Dissoc-iation	35	115	69.3	46.4	0.002*	62.9	67.1	0.652	66.6	59.2	0.261
SC	36	110	70.3	43.5	<0.01*	63.7	62.5	0.900	75.8	46.6	<0.001*

Note: SC=sexual concerns, *$p < .05$

Multiple Regression Results

Table 3 contains the results from the multiple regression models. The objective was to determine if gender and ethnicity predict trauma symptom severity measured by the outcome variables anxiety, depression, anger, dissociation, PTSD, or sexual concern, after controlling for the confounding influences of age, home environment, and socioeconomic level.

Table 3

Regression Analysis Summary Results for Anxiety, Depression, Anger, PTSD, Dissociation, and Sexual Concern

	Anxiety	Depression	Anger	PTSD	Dissociation	Sexual Concern
Intercept	35.63** (<0.01)	51.98** (<0.01)	48.64** (<0.01)	57.58** (<0.01)	40.22** (<0.01)	54.29** (<0.01)
Age at intake	1.68** (<0.01)	0.54 (0.39)	1.77** (<0.01)	0.58 (0.39)	1.23* (0.03)	-0.06 (0.93)
Foster Child	10.08** (<0.01)	10.90** (<0.01)	2.57 (0.42)	15.51** (<0.01)	0.86 (0.77)	14.57** (<0.01)
Female	5.29 (0.10)	4.36 (0.22)	-9.87** (<0.01)	2.43 (0.52)	6.07 (0.06)	15.58** (<0.01)
Hispanic	2.81 (0.48)	2.71 (0.53)	0.82 (0.85)	-3.70 (0.43)	3.22 (0.41)	1.41 (0.76)
Low (2nd Q)	-23.3** (<0.01)	-21.64** (<0.01)	-20.1** (<0.01)	-29.45** (<0.01)	-18.86** (<0.01)	-19.21** (<0.01)
Middle (3rd Q)	-10.4** (<0.01)	-12.70** (<0.01)	-14.0** (<0.01)	-16.67** (<0.01)	-10.08** (<0.01)	-16.39** (<0.01)
High (4th Q)	-6.75 (0.18)	-5.60 (0.31)	-11.73* (0.03)	-12.98* (0.03)	0.85 (0.87)	-11.54* (0.05)
Highest (5th Q)	-11.97 (0.26)	-6.24 (0.59)	-8.03 (0.48)	-15.15 (0.23)	-5.28 (0.62)	-33.48** (0.01)
Observations	126	126	126	126	126	126
R-square	0.39	0.32	0.28	0.43	0.26	0.43
Adj-R	0.36	0.27	0.23	0.40	0.20	0.39

Values in parentheses below the estimated coefficients are the associated p-values.
**p* < .05, ***p* < .01

In the multiple regression analysis for anxiety the model was significant (R^2=0.40, $F = 9.63$, $p < 0.0001$. Significant predictors of higher anxiety included age at intake ($p < .01$), residing in foster care ($p < .01$), and being in the lowest income group ($p < .0001$).

I examined the individual predictors further and age indicated (*t* = 2.94, *p* = .004) and foster care (*t* = 3.38, *p* = .001). Compared to the lowest income quintile the second quintile (*t* = -5.02, *p* < .001), and the third quintile income group (*t* =-3.03, *p* =.003) were significant predictors in the model where higher income groups had better scores. The independent variables of primary interest (gender and ethnicity) did not have any explanatory or predictive influence in this equation.

The depression regression analysis was also statistically significant, R^2 = .32, F (9,117) = 6.82, *p* < .0001. Noteworthy predictors in this analysis included children living in foster homes (*t* = -3.35, *p* =.001), had significantly higher (more severe) scores on the TSCC. In addition, lowest median income was also associated with higher (more severe) scores. Compared to the lowest income quintile the second quintile (*t* = -4.27, *p* < .001), and the third quintile income group (*t* = -3.40, *p* <.001) were significant predictors in the model where higher income groups had better scores. The remaining independent variables in the model, including Hispanic ethnicity, gender, and age at intake were not statistically significant.

The multiple regression analysis for anger are worth mentioning as R^2= .28, F (9,117) =5.76, *p* < 0.0001. Significant predictors for higher anger revealed that age at intake and the lowest income group were associated with significantly higher scores on the TSCC. The individual predictors were examined and indicated that age (*t* =2.90, *p* = .004) and gender (*t* = -2.88, *p* = .005) were significant predictors in the model. Female gender was associated with statistically significant lower scores. On the other hand,

home environment and Hispanic ethnicity were not statistically significant. Compared to the lowest income quintile the second quintile indicated (t = -4.06, p < .001), the third quintile income group indicated (t = -3.84, p <.001), and the fourth quintile (t = -2.18, p =.03) were significant predictors in the model where higher income groups had better scores.

The PTSD outcome variable equation R^2= .43, F (9,117) =11.24, p < .0001 indicated that home environment and income had statistically significant explanatory power. Foster home children (t= 4.44, p <.001) and children living in the lowest income quintile had significantly higher (more severe) scores. Compared to the lowest income quintile, the second quintile (t = -5.41, p < .001), and the third quintile income group (t =-4.16, p <.001), and the fourth quintile (t =-2.19, p = .03) were significant predictors in the model where higher income groups had better scores. Age at intake, gender, and ethnicity were not statistically significant in this model.

Traumatized children diagnosed with PTSD symptoms predicted severity concerning dissociation R^2= .26, F (9,117) = 4.99, p < 0.0001. A child's age at intake indicated (t = 2.16, p = 0.03). Compared to the lowest income quintile, the second quintile (t = -4.09, p < .001) and the third quintile income group (t = -2.97, p =.003) were significant predictors in the model where higher income groups had better scores. Home environment, gender, and Hispanic ethnicity did not have a significant influence on dissociation scores.

Finally, in the sexual concern equation, home environment, gender, and income had statistically significant predictive power, $R^2 = .43$, F (9,117) =11.07, $p < 0.0001$. Children residing in a foster home ($t = 3.49$, $p < .001$) and females ($t = 3.77$, $p < .001$) had significantly higher (increased severity) scores for this dimension of the test. Compared to children living in the lowest income quintile those in the second quintile ($t = -3.53$, $p < .001$), third quintile ($t = -4.09$, $p < .001$), fourth quintile ($t = -1.95$, $p = 1.95$), and the fifth quintile ($t = -2.68$, $p = .008$) had significantly better scores on TSCC. Age at intake and ethnicity were not statistically significant in this model.

Summary

In summary, gender of sexually traumatized children diagnosed with PTSD predicted symptom severity as measured by the TSCC after controlling for the socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home). Female gender had statistically significant predictive power concerning anger (females scoring lower, meaning less magnitude of symptoms) and sexual concern (females scoring higher, indicated higher magnitude or elevated symptoms).

However, Hispanic ethnicity, the second primary variable of interest, did not have predictive power for any of the dimensions of the TSCC. Age at intake was associated with significantly higher scores for anxiety, anger, and dissociation but not in the case of depression, PTSD, and sexual concern. Home environment was a statistically significant predictor for anxiety, depression, PTSD, and sexual concern with children living in a

foster home having significantly higher (worse) scores. Socioeconomic status was the strongest predictor variable in the analysis. In each case, children living in zip codes that fell in the lowest income quintile had significant (higher severity) scores.

I described the findings in Chapter 5 and compared them to the peer reviewed literature described in chapter 2. In addition, I analyzed and interpreted the findings in the context of the theoretical framework. Limitations that arose from the research study are used to revise chapter 1. I conclude Chapter 5 with recommendations for further research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this retrospective quantitative study was to examine gender and ethnic differences, while controlling for the influence of socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home) in the expressed symptomology associated with sexual trauma and a diagnosis of PTSD made using the DSM-5. In this quantitative descriptive study, I used secondary data to examine the symptoms of trauma specifically including anger, anxiety, depression, dissociation, posttraumatic stress, and sexual concerns among male and female children and their ethnicity as measured by the TSCC. The objective of this quantitative retrospective study was to determine predictors in the severity of children's trauma symptoms with a diagnosis of PTSD.

In the first phase of the statistical analysis, I conducted two-sample *t*-tests to examine statistical differences between (a) male versus female participants and, separately, (b) Hispanic/Latino versus non-Hispanic/non-Latino participants. In the second phase, I used a linear multiple regression model to estimate the prediction of gender and ethnicity on the symptom severity of sexually traumatized children diagnosed with PTSD while controlling for the confounding influences of demographic and socioeconomic factors.

Key findings indicate gender of sexually traumatized children diagnosed with PTSD predicted symptom severity as measured by the TSCC after controlling for the

socioeconomic level (approximated by median residential ZIP code level income) and home environment (biological parents or foster home). Female gender had statistically significant predictive power concerning anger (females scoring lower, meaning less magnitude of symptoms) and sexual concern (females scoring higher, indicated higher magnitude or elevated symptoms).

However, Hispanic ethnicity, the second primary variable of interest, did not have predictive power for any of the dimensions of the TSCC. Age at intake was associated with significantly higher scores for anxiety, anger, and dissociation but not depression, PTSD, and sexual concern. Home environment was a statistically significant predictor for anxiety, depression, PTSD, and sexual concern with children living in a foster home having significantly higher (worse) scores. Socioeconomic status was the strongest predictor variable in the analysis. In each case, children living in zip codes that fell in the lowest income quintile had significant (higher severity) scores.

Interpretation of Findings

A better understanding of PTSD symptoms in relation to gender and ethnicity after controlling for socioeconomic level (median household income) and home environment (biological parents or foster home) extends knowledge in the discipline as the findings indicate the necessity for new treatment methods. My findings help to underscore the works of Arredondo and Perez (2006), Garcia et al. (2016), and (Layne et al. (2014) who suggested that a myriad of challenges exist when mental health

professionals assign a diagnosis of PTSD that is not based on the severity of a child's trauma symptoms.

The DSM-5 diagnosis of PTSD is significant in relation to the results of this study. The change from its previous description emphasizes the implications of a precipitating stressor (Friedman. 2013). With the newer DSM-5, experiencing a traumatic or distressful event precipitates a new class of conditions that affect an individual's mental well-being (Kilpatrick et al., 2013). This study extends knowledge in the discipline, following Kilpatrick et al. (2013), with an emphasis on the precipitating stressor to include sexual assault.

Bronfenbrenner's ecological system theory outlines the process of understanding the levels of an individual's environment and how disruptions in one level may affect all levels. Bronfenbrenner (2009) posits that a child's environment affects how a child develops and grows. Bronfenbrenner's theoretical perspective is useful when considering that childhood trauma predisposes individuals to have disruptions in normal development, which may affect their functioning later in life (Bronfenbrenner, 2009). My findings are in agreement with the works of Forkey et al. (2016) and Holmes et al. (1977) who suggest trauma symptoms among female children who reside in foster care create risk factors that predispose them to maladaptive behavior.

Analyzing the findings further in the context of Bronfenbrenner's theory confirms that a family's income level may influence traumatized children. The results of my dissertation validate that poverty may contribute to a child's problematic symptoms that

may affect them as adults (Bronfenbrenner, 2009; Forkey et al., 2016; Hannan et al., 2015). The findings consistently show that children living in lower income zip codes have worse scores for the six dimensions. Zip code median income serves as a proxy not just for household level socioeconomic status, but also access to health care resources, which may help mitigate the impact of the traumatic experience. This points to the importance of policies designed to address income-based disparities in societal resources.

My findings are also in agreement with a meta-analysis that found an increased report of anxiety, depression, PTSD, substance abuse, and suicide among adult survivors of child sexual abuse (Chapman, Dube, & Anda, 2007). Hence, there is a strong agreement that the effects of child sexual assault can linger into the adult years (Chapman et al., 2007; Cohen, Mannarino, & Knudsen, 2005; Hannan et al., 2015; Holmes et al., 1977; Leigh et al., 2015; Maniglio, 2014). For instance, untreated sexual trauma among adults often results in poor psychological, social, and occupational domains (Cohen, Mannarino, & Knudsen, 2005). This is particularly important considering the relatively high social costs associated with untreated sexual trauma, which would accumulate over a child's lifetime.

The findings of this analysis provide strong evidence that children residing in foster homes, as opposed to living with their biological parent(s), fare significantly worse in terms of anxiety, depression, PTSD, and sexual concern after controlling for the influence of age, gender, ethnicity, and socioeconomic status. Recognizing that the decision to place a child in a foster home environment is subject to a complex set of

factors, in cases where the benefits of such placement do not clearly outweigh the costs, these findings suggest erring on the side of biological parents in cases involving acute anxiety, depression, PTSD, and/or sexual concern. The results further suggest that a foster home environment may be particularly traumatic to female children, especially where sexual concerns exist. Taken together, the combination of these factors (female gender and foster home environment) is associated with a particularly elevated score concerning sexual concern, further highlighting the complicated and interrelatedness of factors involved.

Findings also confirm that the recognition of female victims who reside in foster care, should serve to re-direct agencies towards the goal of ensuring that male and female victims receive treatment that addresses their specific symptoms. McMillen et al. (2005) researched the prevalence of psychiatric disorders among children in the foster care system and concluded they possess high rates of psychiatric disorders. Using a child welfare database, McMillen et al. (2005) identified a foster child's traumatic experiences and their trauma related symptoms. These researchers concluded a relationship between mental health symptoms and a traumatized child's relationship to their environmental experiences. In the process of recognition and redirection, the consideration of home environment could be reframed in view of the severity of a child's trauma symptoms due to sexual assault. The results of my study indicate that specific treatment is necessary for traumatized children who experienced sexual assault children. The findings also

contribute to the knowledge base in an effort to decrease their trauma symptoms, which may reduce the long- and short-term effects of their abuse.

Finally, my results do not support existing literature that suggest Hispanic ethnicity is associated with differential scores across the dimensions. Because my study is the first of its kind to account for the influence of both home environment and income when examining the role of ethnicity, I re-ran the regressions excluding these factors. The results of the reduced model did not change the statistical results of Hispanic ethnicity, which remained non-significant. This suggests that the lack of significance associated with Hispanic ethnicity in my models was not the result of collinearity existing between ethnicity, home environment, and income. Stated differently, the lack of significance of Hispanic ethnicity in this analysis does not imply that previous studies that found such a statistical relationship suffered from omitted variables bias. A more likely explanation of this finding concerns the lack of specificity associated with the overly broad definition of Hispanic ethnicity, which encompasses widely different cultures. This concept is discussed in more detail in the section on limitations.

Limitations

A potential limitation of this study concerns its application of administrative data, as opposed to data collected for the specific purpose of investigating the stated hypotheses. Administrative data lacks certain aspects concerning the participants, for example their behavioral or psychological history, that may have been helpful in explaining the observed variation. Nonetheless, the fact that my findings regarding

gender and age suggest that the phenomenon are in agreement with the works of previous researchers demonstrates that these variables are common and strong predictors.

Similar to other studies of the outcomes relating to symptomology following sexual trauma, gender options on the intake form identified participants as either male or female. Although it is best practice to go beyond binary categories of gender, this limitation is worth noting. Binary categories of gender are a limitation as giving options beyond male and female for gender is prudent in social science research. Furthermore, on the intake form, ethnicity was poorly defined in that it allowed only an overly broad distinction between Hispanic or Latino and non-Hispanic or Latino for the clients. Ethnicity is largely the result of an individual's environmental nurture (as opposed to nature). Thus, a child born and raised in Mexico, Puerto Rico, Cuba, or Central and South America would likely have different cultural experiences compared to his/her American peers. However, potentially wide varieties of ethnicities may have been obscured by the umbrella label "Hispanic." Clearly, additional research using better defined ethnic differences, from the perspective of children's nativity, would be warranted as it relates to documenting differences which could be critical in understanding and treating the symptoms relating to sexual trauma in certain segments of society.

A limitation impacting the validity of my study is convenience sampling method. My sample could not be random due to the criteria that the participants experienced PTSD. In addition, few studies have been conducted to validate the changes in trauma

reported symptoms using the DSM-5 criteria. The addition of sexual assault in both the definition and diagnostic criteria for the diagnosis of PTSD with the adoption of DSM-5 indicate a justification for further research. My dissertation's validity could be established and verified with additional studies that analyze PTSD symptoms to determine how the changes to the trauma criteria according to the new
DSM-5 affect a sexually assaulted child's diagnosis. Although my results aren't widely different from previous similar study, it still holds validity.

The trauma symptom checklist for children (TSCC; Briere, 2001) was implemented to assess whether home environment and socionomic factors predicted the severity of a sexually assaulted child's symptoms. This measure is already evidenced based and improved the validity and reliability of the study (Pollio, Glover-Orr, & Wherry, (2008). Creswell (2009) emphasized that one of the best strategies is to use measures that have been used before whose reliability and validity have been established. However, a limitation exists as the TSCC was developed before the DSM-5 and there are no study's that prove the TSCC correlates with the updated DSM-5.

Recommendations

More research with diverse populations is essential to clarify if children from particular ethnic groups are more vulnerable to sexual symptoms of trauma or whether ethnic minority children in general are more vulnerable. Apart from socioeconomic status, home environment, and symptom severity it is also possible that factors, which

influence parenting, attitudes regarding sexuality, and symptom formation (Cohen et al., 2001) may help explain higher levels of sexual symptoms among different ethnic groups.

It is estimated that 6% of U.S. children spend time in foster care between the ages of birth to 18 years (U.S. Department of Health and Human Services, 2014). A true experimental model including randomized subjects, a control group, and sources of parental stress could provide greater knowledge of the impact of PTSD and sexual assault symptoms affecting children. However, a true experimental design may not be possible from an ethical standpoint or at least that such experimental designs are unlikely to meet guidelines for ethical research. As a result, clinicians should consider including family-based services that address home environment when treating sexually assaulted children with PTSD. The results of this study supports Bronfenbrenner's (2009) ecological systems theory's premise that the effects of child sexual abuse are a factor of psychosocial development.

Finally, it is noteworthy to mention that the majority of existing research was conducted on the identification of symptoms as defined in the Diagnostic and Statistical Manual IV- Text Revision (DSM IV-TR) criteria, which has since been replaced by the Diagnostic and Statistical Manual-5 (DSM-5) criteria for PTSD (Carragher, 2016). The new criteria differ in important ways, including the modified stressor criterion in the DSM-5 that includes sexual assault (Bradley et al., 2014; Carragher, 2016; Cohen et al., 2016). The addition of sexual assault in both the definition and diagnostic criteria for the diagnosis of PTSD with the adoption of DSM-5 indicate a justification for further

research into the socioeconomic level (median household income) and home environment (biological parent or foster home) differences in symptomology among sexually assaulted children (Bradley et al., 2014; Carragher, 2016; Cohen et al., 2016).

Implications

The most widely recognized purpose of the Diagnostic and Statistical Manual of Mental Disorders is to help clinicians and psychiatrists diagnose psychiatric illnesses. This analysis focused on the diagnosis of PTSD using DSM-5 criteria with the objective of better understanding the roles of gender, ethnicity, socioeconomic status, and home environment as it pertains to PTSD symptom severity; anger, anxiety, depression, dissociation, posttraumatic stress, and sexual concerns. The results provide moderate to strong evidence of disparities: older children and children residing in a foster home setting, as opposed to with their biological parents, fared worse; female gender was not consistently associated with better or worse symptoms; Hispanic ethnicity did not affect symptom severity; and higher socioeconomic status was associated with consistently better scores on the TSCC.

The latter disparity suggests that socioeconomic status, as measured here by median zip code income, may be an indicator for the level of access to resources, both at the household and societal levels that affect how well a child recovers from PTSD. Given that the model controlled for home environment, to some extent incorporating a home support system, further emphasizes the importance of access to societal resources such as school counselors or psychologists, after school programs, or other social safety net

programs. In addition, dynamics to promote positive social change should be created as this study addresses clinical implications concerning the care, treatment, and training of providers for sexually-assaulted children diagnosed with PTSD.

What is of particular interest is that the socioeconomic differences were strongest and most consistent comparing the lowest quintile to the second and third lowest quintiles. The lack of significance relating to the higher income groups is likely due to statistical power as relatively few children in my sample lived in these zip codes. The consistently higher scores on the TSCC for children in the second and third lowest income quintiles suggests that small investments in the safety net may produce significant gains in terms of a child’s mental well-being. The results pertaining to socioeconomic status indicate that a comprehensive solution to the problem of PTSD resulting from sexual assault must include better understanding of the social support system accessible to victims. Griggs et al. (2013) posited that low-income families were determined a risk factor as they had less resources when managing family circumstances related to raising children. In addition, Griggs et al. (2013) reported that low income families are necessary to address as they lack access to healthcare, childcare, and scheduling inflexibility that may contribute to childhood trauma (Griggs et al., 2013; Williams and Boushey, 2010). The successful management of the symptoms related to PTSD depends on a traumatized child’s demographic factors and home environment as it does on social and economic factors.

Further, disseminating the relevant findings from this study could increase awareness of inefficiencies in current identification of symptoms and inadequacies in the training of trauma providers (Ericksen, 1997; Garcia et al., 2016). Because of this study, I hope to increase awareness among mental health providers, advocates, physicians, and educators in the community. Unfortunately, pediatricians who receive little training in childhood behavioral disorders (Connor, Ford, Arnsten, & Greene, 2015) treat most traumatized children. Although half of a standard practice involves behavior problems, most pediatricians receive limited training in these issues (Connor et al., 2015). Therefore, further knowledge of PTSD symptom expression can produce social change that encompasses a new protocol when treating traumatized children. (Carragher, 2016; Kerig & Becker, 2012; Layne et al., 2014). In response to Astramovich and Coker's (2007) proposed key shift in the counseling profession to continually assess and evaluate programs and outcomes, my study could produce social change by allowing me to educate professionals and the public through training sessions and seminars that promote a greater understanding of PTSD symptoms than was previously know.

Because of my professional work, I also embrace recommendations for practice. My study contributes to a better understanding of the need for gender specific training for mental health care providers than was previously known. According to the Council for Accreditation of Counseling and Related Educational Programs' (CACREP) 2009 standards, mental health providers are required to improve their competencies and skills to embrace a change in the way trauma victims are treated (CACREP, 2009). Sexual

victimization is a challenging focus of counseling as assessments and specific evidenced based treatment methods are critical to the victim's healing process (Garcia et al., 2016: Briere & Scott, 2006). Additionally, Parker and Henfield (2012) reported that counselors felt unprepared to assess victims of sexual assault trauma (Garcia et al., 2016; Holmes et al., 1977). Moreover, a social change movement for support and training of mental health providers is indicated as 60% of mental health providers reported wanting additional training to perform trauma interventions (Garcia et al., 2016; Parker & Henfield, 2012).

Conclusion

Many objectives were met by undertaking this study. For instance, increase knowledge of the magnitude of trauma to mental health providers, physicians, and the community. The information gained will strengthen agencies capacity to better facilitate and implement effective treatment for trauma survivors. In addition, application of the new understanding will improve the existing protocol and measure the outcomes of the new protocol.

Considering this, the effects of sexual assault may impact a victim's environment, personal boundaries, family environment, and perceptions of sexualized behaviors (Holmes, Offen, & Walker, 1977). These short- and long-term effects may also cause a victim to experience overwhelming recollections of the abuse over their lifetime. Short term effects of assault may prevent a victim's ability to sustain a relationship. Whereas,

long term effects may cause a victim to mistrust people for an extended period of time influencing the remainder of a victim's life.

Through the process of writing my dissertation, my perspective about care and treatment for traumatized children changed to a greater sense of urgency. A sense of personal and professional efficacy in bringing about needed changes in the mental health field require all to commit to learning and developing new methods and policies that will benefit others. To increase utilization of treatment, and decrease early termination, traumatized children require counseling services that will meet their needs in ways that are relevant to their symptoms. The more mental health services reflect the needs of the client, the more likely the services will be utilized and effective.

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