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Implications of discrimination and child maltreatment: a latent profile analysis

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IMPLICATIONS OF DISCRIMINATION AND CHILD MALTREATMENT: A LATENT PROFILE ANALYSIS

by
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CERTIFICATE OF APPROVAL

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PH.D. THESIS

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To my family:
It is very special indeed, to be as well-loved, as I have been.

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ABSTRACT

Child maltreatment is a pervasive social and public health problem in the United States. The negative effects of child maltreatment can include poor mental and relational health outcomes. The experience of discrimination has been shown to have many of the same mental and relational health difficulties. Child maltreatment and discrimination are both social health problems that disproportionately affect the most marginalized people in our society (people of color, people with disabilities, LGBT individuals). Complex trauma, or the experience of multiple traumas, has been shown to have worse mental and relational health outcomes then experiencing one type of trauma alone. Feminist theory is a useful framework for studying how those with marginalized identities experience the effects of child maltreatment. Feminist theory argues that it is essential to incorporate an analysis of power to truly capture the experience of complex trauma for people with marginalized identities. The effects of child maltreatment and discrimination have been studied individually, however little is known about the effects of experiencing both. Data from the National Survey of Midlife Development in the United States (MIDUS) biomarker project was used to examine the effect of experiencing both child maltreatment and discrimination. Latent profile analysis was used to create distinct profiles of trauma out of child maltreatment variables and discrimination. A four profile solution was determined to be the best fitting model. The profiles were Low Trauma, Child Maltreatment/Discrimination, Child Maltreatment and Child Maltreatment/ Discrimination High. Analysis of covariance was then used to determine how each profile of trauma was related to anxiety, depression, family support and family strain. Differences were found among the profiles and the mental health and relational outcomes. Results and clinical implications are discussed.

PUBLIC ABSTRACT

Both child maltreatment and discrimination are pervasive public health concerns. Both have been shown to have the potential to lead to poor mental and relational health outcomes. These two public health concerns disproportionately affect the most marginalized people in our society (i.e. people of color, people with disabilities, LGBT individuals). It can be important to conceptualize both child maltreatment and discrimination as forms of trauma. Complex trauma is the experience of multiple trauma over the course of a lifetime. Feminist theory would argue that framing discrimination as a type of trauma allows for the focus to be placed on societal ills rather than individual pathology. This study examines the effects of experiencing both child maltreatment and discrimination on the long term outcomes of anxiety, depression, family closeness and family strain. Latent profile analysis was used to create distinct profiles of trauma out of child maltreatment variables and discrimination. A four profile solution was determined to be the best fitting model. The profiles were Low Trauma, Child Maltreatment/Discrimination, Child Maltreatment and Child Maltreatment/ Discrimination High. Analysis of covariance was then used to determine how each profile of trauma was related to anxiety, depression, family support and family strain. Differences were found among the profiles and the mental health and relational outcomes. Results and clinical implications are discussed.

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CHAPTER ONE

INTRODUCTION

Statement of the Problem

Childhood maltreatment is a pervasive public health concern. Child maltreatment has traditionally been conceptualized as experiencing or being a direct witness to physical abuse, emotional abuse, sexual abuse, or neglect (Green et al., 2010; Maneta, Cohen, Schulz, & Waldinger, 2015; Mullen, Martin, Anderson, Romans, & Herbison, 1996). Within the United States in 2013, the Department of Child Protective Services received approximately 3.2 million reports of suspected child maltreatment. About 670,000 cases were substantiated by the state or local child protective services as child maltreatment. Of these substantiated cases, neglect was the most common (79.5%), followed by physical abuse (18%), sexual abuse (9%), and emotional maltreatment (8.7%). Many victims experience more than one of the aforementioned types of abuse. The racial makeup of child victims includes 44% White, 22.4% Hispanic, and 21.2% African-American. In 2013, an estimated 1,520 children died as a consequence of physical abuse or neglect (U.S Department of Health and Human Services, 2013).

The experience of maltreatment in childhood can have many long-lasting negative effects (Ackerman, Newton, McPherson, Jones, & Dykman, 1998; Arnow, 2004; Edwards, Holden, Felitti, & Anda, 2003; Springer, Sheridan, Kuo, & Carnes, 2003). The negative effects of child abuse can encompass impaired emotional, behavioral, and social functioning, as well as higher rates of mental and physical illness (Arnow, 2004; Edwards, Holden, Felitti, & Anda, 2003). Effects for adolescents can include both internalizing and externalizing symptoms, such as school dropout, sexual risk-taking, depression, and anxiety (Wolfe, Scott, Wekerle, & Pittman, 2001). For adults, the experience of childhood abuse has been linked to conflictual adult

romantic relationships, which include weaker attachments, higher rates of violence, and higher rates of conflict and stress (Halford, Sanders, & Behtrens, 2000; Rellini, Vujanovic, Gilbert, & Zvolensky, 2012). Childhood abuse has been linked to an increased risk of suicide attempts (Dube et al., 2001) and certain psychiatric disorders including major depression, posttraumatic stress disorder, conduct disorder, oppositional defiant disorder, generalized anxiety disorder, and substance abuse disorder (Flisher et al., 1997; Ford et al., 2000; Lindert, von Ehrenstein, Grashow, Gal, Braehler, & Weisskeopf, 2014; Weiss, Longhurst, & Mazure, 1999).

In addition to child maltreatment, the experience of social discrimination is another public health concern in the United States. Discrimination in U.S. society has been found to occur based on various social locations including race, gender, gender identity, sexual orientation, religion, and ability (Allen, 2005; Coleman, 2003; Coleman, Darity, & Sharpe, 2008; Grant et al., 2010; Harpur, 2009; Leslie, King, Bradley, & Hebl, 2008). Discrimination is defined as unequal treatment based on a person's social location (Gee, Ryan, Laflamme, & Holt, 2006). The experience of discrimination can be a single occurrence or chronic event and can lead to chronic stress that can have many negative health outcomes (Kessler, Mickelson, & Williams, 1999).

Similar to child maltreatment, discrimination has been found to be connected to poor mental health outcomes. The experience of discrimination has been shown to predict various mental health conditions including somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, and anxiety (Klonoff, Landrine, & Ullman, 1999). Additionally, reports of discrimination have been linked to lower levels of self-esteem and higher reports of psychological distress and binge eating (Moradi & Hasan, 2004; Waldo, 1999). These effects have been found for a variety of social locations including racial minorities, women, and people

who identify as lesbian, gay, bisexual and transgender (LGBT) (Landrine & Klonoff, 1996; Moradi & Subich, 2003; Corning, 2002; Landrine & Klonoff, 1996; Szalacha et al., 2003; Waldo, 1999; Moradi & Hasan, 2004).

The experience of discrimination has many similar characteristics and long-term implications as other traumatic events. Due to this, many scholars have argued for the experience of discrimination to be conceptualized as a type of trauma (Bryant-Davis & Ocampo, 2005; Butts, 2002; Carter, 2007; Comas-Diaz & Jacobsen, 2001; Loo et al., 2001; Scurfield & Mackey, 2001). This labeling is important for two main reasons. First, it provides validation to those who have experienced these harmful events that discrimination is a real phenomenon that has real implications for mental, emotional, and interpersonal health. This alleviates the blame of dysfunction on the person and instead places it on the event itself. Second, conceptualizing discrimination as trauma has important clinical implications. Research suggests that experiencing discrimination has similar deteriorative qualities as other negative life events that have been called trauma (Seng, Lopez, Sperlich, Hamama, & Meldrum, 2012). Learning more about the effects of experiencing both discrimination and child maltreatment could help inform specific clinical interventions that target multiple types of trauma. These specific clinical interventions could lead to better outcomes for this population.

People who have experienced multiple traumas tend to have worse mental and relational outcomes than those who experience a single trauma. Researchers and clinicians have discovered that prolonged and repeated traumas can have more pervasive detrimental effects on clients' lives than single-case trauma (Courtois & Ford, 2012; Herman, 1992). The experience of chronic and multifaceted trauma has been given multiple terms in the literature including complex trauma, poly-victimization, and cumulative adversity (Greeson et al., 2011). For the purposes of

this dissertation, I will use the term complex trauma. Complex trauma has been coined to define the experience of multiple traumas reoccurring over time and may include different types or sources of trauma (Courtois & Ford, 2012). For example, a person who has experienced complex trauma may have experienced abuse in childhood and also domestic violence in adulthood. Complex trauma can include different types of child maltreatment, domestic violence, war, being a prisoner of war, being a refugee, natural disaster, human trafficking, as well as other events. I argue that, due to the similarity of effects, the experience of discrimination can also be included in the framing of complex trauma. By framing complex trauma this way, we can better understand the unique outcomes that come from having a marginalized identity and experiencing child maltreatment.

The experience of complex trauma can have many negative outcomes. Survivors of complex trauma have been found to have significantly higher rates of posttraumatic stress and internalizing symptomology than those with a history of single trauma (Greeson et al., 2011). The exposure to trauma over time can disrupt several different developmental periods and cause disruptions in emotional and interpersonal growth (Courtois & Ford, 2012). The experience of complex trauma has been associated with interpersonal struggles, anxiety, depression, dissociation, substance abuse, and risk-taking behaviors (Courtois & Ford, 2012). Additionally, those with complex trauma histories may have lower treatment response to empirically validated clinical interventions (Cohen & Hien, 2006).

Feminist theory is a useful framework for the conceptualization of complex trauma. As mentioned above, child maltreatment is a pervasive social health problem that affects many people (Allen, 2005; Coleman, 2003; Coleman, Darity, & Sharpe, 2008; Grant et al., 2010; Harpur, 2009; Leslie, King, Bradley, & Hebl, 2008). The long-term negative effects of child

maltreatment are well known (Klonoff, Landrine, & Ullman, 1999; Moradi & Hasan, 2004; Waldo, 1999). Additionally, data show that those with the least power in our society have higher rates of exposure to childhood maltreatment. Feminist theory can be useful when trying to understand the possible effects of being a person with a marginalized identity and having the experience of child maltreatment. Feminist theory would argue that no understanding of a social phenomenon is complete without an analysis of power (Brown, 2004). In this case, incorporating the experience of discrimination can be a way of accounting for unequal treatment within society. Without this analysis of discrimination, a critical piece of the lived experienced for this group of people is missing. It is not enough to simply acknowledge demographics when looking at people who have experienced child maltreatment. It is essential that the trauma associated with having certain social locations (e.g. discrimination) is also examined.

Though the effects of child maltreatment and of discrimination on mental health have been studied individually, little is known about the effects of experiencing both. Previous literature has shown that the experience of more than one type of trauma can have serious negative effects on mental and relational health. To study the effects of complex traumas, researchers have started to include multiple categories of abuse into their research design (Aebi et al., 2015; Berzenksi & Yates, 2011; Charak & Koot, 2015). Multiple categories of child maltreatment (e.g. physical abuse, sexual abuse, emotional abuse, and neglect) have been used to create mutually exclusive profiles of abuse. In other words, profiles of abuse have been created from the sample based off of probability. These profiles have then been used to test for associations with various mental health outcomes such as anxiety, depression, and cognitive functioning.

The studies that have included multiple types of child maltreatment in their analysis have added important knowledge to the field. Many have shown that there are unique associations between different types of trauma and long-term outcomes (Aebi et al., 2015; Armour, Elklit & Christoffersen, 2014; Berzenksi & Yates, 2011; Charak & Koot, 2015; Pears, Kim, & Fisher; 2008; Petrenko et al., 2012; Romano, Zoccolillo, & Paquette, 2006; Walsh, Senn, & Carey, 2012). While some of these studies have included demographics in their analysis, none has included the potential of associated trauma with those demographics. Including the experience of discrimination in the analysis is important for two main reasons. First, the literature shows that additional exposure to trauma matters for mental health outcomes (Herman, 1992). Having the experience of discrimination in addition to the experience of child maltreatment may create unique associations for this population with mental health and relational outcomes such as depression, anxiety, or family closeness. Second, if discrimination is not accounted for, it is possible that the negative outcomes that are associated with child maltreatment are being overly contributed to experiences of child maltreatment and in fact can be better accounted for by the experience of multiple traumas.

Purpose of the Study

This dissertation aims to use feminist theory to examine how different combinations of child maltreatment and social discrimination affect mental and relational health outcomes. Specifically, it seeks to examine if exposure to different types of trauma has different implications for adult outcomes of anxiety, depression, family support and family strain. By incorporating discrimination into the conceptualization of complex trauma, we will be better able to understand the experience of trauma for people who have marginalized identities and

experiences with child maltreatment. A discovery of unique associations with mental and relational outcomes for this population could have implications for clinical treatment.

Latent profile analysis will be used to create mutually exclusive profiles of complex trauma. The experience of maltreatment in childhood and the experience of discrimination in adulthood will be used to create the profiles. Child maltreatment will be broken down into five categories: physical abuse, emotional abuse, sexual abuse, physical neglect, and emotional neglect. Discrimination will have two categories: acute discrimination (single event) and chronic (frequent events in daily life) discrimination. Once profiles are generated, associations with anxiety, depression, and family closeness will be tested using analysis of covariance (ANOVA).

If the profiles with discrimination in them have different outcomes for anxiety, depression, family support and family strain this could be important for both research and clinical practice. Such profiles would suggest that an important aspect of complex trauma is being missed for people with marginalized identities who have experienced discrimination. It has been argued that incorporating co-occurring trauma is important when studying the effects of child maltreatment (Briere & Elliott, 2003). If co-occurring trauma is not acknowledged, then it is possible that negative effects are being overly contributed to one trauma when really the effects are due to multiple traumas (Briere & Elliott, 2003). Incorporating the experience of discrimination into our analysis of child maltreatment for those with marginalized identities allows us to better account for the association between child maltreatment and negative long-term outcomes—namely, that other trauma, such as discrimination, also contributes to those negative outcomes.

In clinical practice, if profiles with discrimination and child maltreatment are found to have higher dysfunction for depression anxiety, family support and family strain this would have

implications for how we assess trauma. Experience of abuse in childhood is commonly (but not always) assessed for at the beginning of therapy, however this is not the same for the experience of discrimination (Reece, Hanson, & Sargent, 2014). Incorporating an assessment for both child maltreatment and discrimination into the intake process of therapy, could be beneficial in gathering a client's complete trauma history. Having a more complete understanding of a client's trauma history could help the therapist design a more effective treatment plan. For example, if a client presents with depression and child maltreatment. If this clients has also experienced discrimination, it is possible that the experience of complex trauma is exasperating their depression symptoms. If discrimination is not assessed for, this crucial aspect of the client's mental health could be missed and possibly make therapy less effective. By assessing for both child maltreatment and discrimination, therapists will be better positioned to comprehensively treat client's symptoms such as depression, anxiety or family closeness.

Research Questions

The purpose of this study is to add to our knowledge of the effects of child maltreatment and discrimination on depression, anxiety, family support and family strain. Listed below are this studies guiding research questions. In latent profile analysis, the typologies are derived from the sample, and a priori hypothesis is generally not generated. Based on previous research, I am anticipating that those who belong to profiles that contain child maltreatment types and/or discrimination will have worse mental-health and relational outcomes than those who belong to typologies with no child maltreatment and/or discrimination. Based on the additional stress of living with discrimination, I hypothesize that the levels of the outcome variables will differ for typologies that include discrimination.

1. What are the distinct profiles of trauma?

2. Do profiles with more complex trauma have higher rates of depression compared to profiles without trauma?
3. Do profiles with more complex trauma have higher rates of anxiety compared to profiles without trauma?
4. Do profiles with more complex trauma have lower reports of family support compared to profiles without trauma?
5. Do profiles with more complex trauma have higher reports of family strain compared to profiles without trauma?"

Summary

Child maltreatment and social discrimination are two pervasive social and public health concerns. Negative mental and relational health outcomes have been found for both issues. Additionally, people with some marginalized identities may be at higher risk of experiencing child maltreatment as well as social discrimination. Conceptualizing social discrimination as a type of trauma allows for a more nuanced investigation into the experience of child maltreatment for those who have marginalized identities. The experience of complex trauma has been shown to have higher rates of pathology associated with it. Studies have accounted for the experience of multiple traumas by looking at different types of child maltreatment within a single study. Some of these studies have included an analysis of social location, but none has included the associated trauma of discrimination that can come from membership to marginalized groups. Feminist theory says that without incorporating discrimination in the analysis, key aspects of people's lives will be missed. The purpose of this study is to investigate the associations of different types of trauma—specifically, physical abuse, emotional abuse, sexual abuse, neglect, and experience

of discrimination—with the mental and relational health outcomes of anxiety, depression, family support and family strain.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

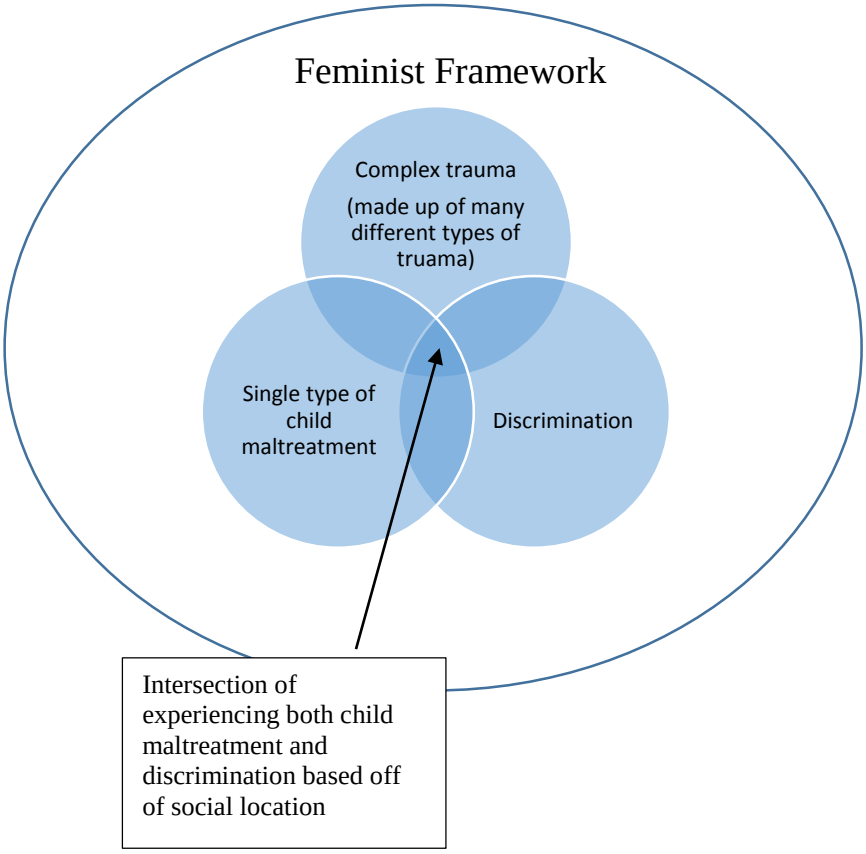
In this chapter, I will first review the negative effects of the pervasive societal concerns of child maltreatment and discrimination on mental and relational health. I will then present an argument for the usefulness of conceptualizing discrimination as trauma and how the experience of discrimination has many qualities similar to other types of trauma. Feminist theory will be presented as a way to conceptualize the importance of conducting research that accounts for discrimination against those who have experienced child maltreatment. Next, I will argue that child maltreatment and discrimination should be studied together as complex trauma. Limitations of single-type- of- trauma studies will be provided and using latent profile analysis to address these limitation is discussed. Although latent profiles analysis has been used to correct for some limitations, it has not yet been used with discrimination as a type of trauma. An argument for including discrimination in the profiles will be given. Finally, the outcome variables of anxiety, depression and family closeness will be explored and their importance for this study will be given.

Conceptual Map

Using a feminist frame while examining the effects of complex trauma allows for an analysis of how multiple types of individual and societal trauma can influence long term mental and relational outcomes. In this study, I will use a feminist frame to conceptualize complex trauma. While there are many different types of trauma that can contribute to complex trauma, for the purposes of this study, I will focus on child maltreatment and experiencing societal

discrimination. Specifically, this study will focus on the overlap between experiencing both child maltreatment and discrimination.

Figure 1: *Complex Trauma Conceptual Map*



Child Maltreatment

Child maltreatment has high societal costs. In 2013, about 670,000 child abuse cases were substantiated in the United States (Department of Child Protective Services). Many negative mental health outcomes have been found for adults who experienced child maltreatment. Children who have experienced maltreatment have higher rates of mental-health diagnosis and can experience strained or dysfunctional relationships throughout their lives (Edwards, Holden, Felitti, & Anda, 2003; Springer, Sheridan, Kuo & Carnes, 2003). For example, some studies show evidence that people who experience maltreatment in childhood are more likely to be in violent relationships as adults, both as the perpetrator of violence and the

victim (Conron, Beardslee, Koenen, Buka, & Gortmaker, 2009). Adult survivors of childhood maltreatment are at greater risk of being diagnosed with many different mental-health diagnoses including major depression and post-traumatic stress disorder (Bensley, Spieker, Van Eenwyk, & Schoder, 1999; Flisher et al., 1997; Ford et al., 2000; Lindert, von Ehrenstein, Grashow, Gal, Braehler, & Weisskeopf, 2014; Weiss, Longhurst, & Mazure, 1999).

Discrimination

Discrimination is connected to social inequalities and has high societal costs. Social inequalities happen on multiple levels of society, including institutional, interpersonal, and internalized. Institutional discrimination is the structural barriers, societal norms, and social policies that benefit one group of people over all other groups (Jones, 2000). This can manifest in unequal access to education, social opportunities, and personal advancement (Entwisle, 1997). An example of institutional discrimination is the pay gap that exists between men and women in the United States. On average, women make 80% of what men earn doing the same job with the same experience, for women of color the pay gap is even larger with Hispanic women earning 54% of what white men earn (American Association of University Women, 2017). This type of discriminatory practice is embedded within the laws, policies, and historical precedents of institutions and therefore persists over time and does not require a single perpetrator of discrimination (Jones, 2000). Other examples of discrimination include: African American men being incarcerated at higher proportional rates than any other demographic in the United States (U.S Department of Justice, 2015) and in 28 states LGBT people having no legal protection against being fired for belonging to the LGBT community (Human Rights Campaign, 2015). Institutional discrimination exists in many different forms and is deeply imbedded in fabric of our society.

Interpersonal discrimination is the personal prejudice of one person towards another. This type of discrimination can be both intentional and unintentional. Personal prejudice can be actions, thoughts, or beliefs. Interpersonal discrimination can result in negative stereotypes of groups of people, the belief of biological superiority of one group over another, and the withholding of basic human rights and respect (Hebl, Foster, Mannix, Dovidio, 2002; King, Shapiro, Hebl, Singletary, & Turner, 2006). Internalized discrimination is the acceptance of negative social messages about the inferiority or deficits of a group an individual belongs to. In the United States 59.2% of hate crimes are based on the victim's race, culture or ancestry (FBI, 2015). People who belong to marginalized groups internalize the negative messages that they have been taught about their group (or groups), which can affect their ideas about their own worth and abilities (Jones 2000). The effects of internalized oppression can include low self-esteem, feelings of shame, and distancing oneself from other people in the shared group (Bobbe, 2002; Igartua, Gill, & Montoro, 2009).

This study will focus on institutional and interpersonal discrimination. Discrimination has been shown to have negative effects on mental- and relational-health (Klonoff, Landrine, & Ullman, 1999). Discrimination in this study will be categorized as lifetime and daily. Lifetime includes one-time events, such being denied a bank loan or being harassed by the police because of social location. Daily discrimination is daily occurrences of unfair treatment, such as when a person is treated with less respect in public or assumed by strangers to be dishonest. These types of experiences are harmful to those who experience them and have real implications on their lives and well-being (Kessler, Mickelson, & Williams, 1999).

Discrimination as Trauma

Experiencing discrimination due to social location can have many similar symptoms to child maltreatment such as hyperawareness and increased rates of depression, anxiety, and PTSD symptoms (Moradi & Hasan, 2004; Waldo, 1999). The experience of discrimination has been linked to many negative mental- and relational-health outcomes (Pieterse, Todd, Neville, & Carter, 2011; Nyborg & Curry, 2003; Poussaint & Alexander, 2000). Experiencing discrimination has been found to be highly correlated to PTSD symptomology (Seng, Lopez, Sperlich, Hamama, & Meldrum, 2012). Racism has been shown to be an indicator of an increased risk of a PTSD diagnosis for Asian Americans and an increased risk of both psychiatric and physical problems for African Americans (Loo et al., 2001; Jackson et al., 1995). The experience of homophobia, classism, and racial discrimination can predict higher reports of social isolation and lower reports of self-esteem for gay/bisexual Latino men (Diaz et al., 2001). Additionally, exposure to discrimination has also been tied to higher rates of suicidality (Nyborg & Curry, 2003; Poussaint & Alexander, 2000). Experiencing discrimination can lead to many negative outcomes that can affect mental and relational well-being for marginalized populations.

Due to the links between negative mental- and relational-health outcomes and discrimination, many scholars have argued that the experience of discrimination should be considered a type of trauma (Bryant-Davis & Ocampo, 2005; Butts, 2002; Carter, 2007; Comas-Diaz & Jacobsen, 2001; Loo et al., 2001; Scurfield & Mackey, 2001). The experience of other types of trauma, such as child maltreatment, has many similarities to the experience of discrimination. Wyatt (1990), explains that for both the experience of childhood sexual abuse and racism the victim can feel emotions of betrayal, fear, and powerlessness, as well as internalized feelings of guilt and shame. Survivors of childhood maltreatment often display

difficulty in building trusting relationships with others, which has also been found for survivors of discrimination (Green, Davis, Karshmer, Marsh, & Straight; Kendal-Tackett, 2002). The experience of discrimination has many of the same qualities and long-term implications for its survivors as other forms of trauma. Conceptualizing discrimination as another form of trauma allows for a more complete investigation into the mental and interpersonal implications of experiencing negative life events.

Feminist Theory

Feminist theory can be a useful framework for studying the effects of child maltreatment on adult outcomes (Brown, 2004b). Feminist theory emphasizes an analysis of how inequality affects individuals (Enns, 2004; Goldner, 1987; Hare-Mustin, 1978). Discrimination is an essential aspect of studying complex trauma through a feminist lens. A key aspect of feminist theory is the belief that pathology does not come from an individual's deficit but instead from systematic unfair treatment based on social location (Lerner, 1993). In other words, it is society that is sick but the individuals with the least amount of power within a particular society are the ones most likely to show symptoms of that sickness (i.e. individual pathology). Root (1992), uses the term "insidious traumatization" to explain the experience of discrimination of marginalized groups. She argues that traumatic stressors occur daily for marginalized people, such as men of color, people with disabilities, LGBT people, as well as others. These traumatic stressors can vary but can include witnessing or learning about violence against people from a group a person belongs to, stereotyped representations in the media of a group a person belongs to, and denial of resources based on social location. Root argues that these insidious traumatization represent the constant threat of a lack of safety. Living in an environment with a constant threat can create situations in which an event that may not constitute a direct threat to life (i.e. racial

discrimination or street harassment) can lead to symptoms of PTSD (Fizgerald, 2003). This is why feminist scholars argue that it is not enough to simply include social demographics in studies about child maltreatment (Brown, 2004b). Adding discrimination, based on social location, to the analysis allows for the traumas of certain demographics within a specific cultural context to be accounted for. Adding discrimination as a type of trauma in this study will allow for a more complete picture of trauma for those who have marginalized identities and experiences of social discrimination.

Child Maltreatment and Discrimination as Complex Trauma

The experience of being exposed to both child maltreatment and discrimination can be considered complex trauma. Complex trauma, or the experience of multiple traumas, can lead to many negative mental- and relational-health outcomes (Greeson et al., 2011). While many types of trauma could be examined, this dissertation will focus specifically on child maltreatment and the experience of discrimination. Studying the experience of childhood maltreatment and the experience of discrimination together is important for several reasons, which will be reviewed below.

First, while demographics are often reported in child-maltreatment studies, the associated trauma often co-occurring within those demographics is not accounted for. As previously mentioned, feminist theory would argue that incorporating demographics without studying the effects of having those demographics within a particular society is an incomplete investigation into a phenomenon (Brown, 2004b). By studying the experience of discrimination, I will be able to explore whether the experience of discrimination matters to mental- and relational-health outcomes with regard to child maltreatment. Specifically, I will explore whether the experience

of discrimination changes the outcomes of depression, anxiety, and family support and strain for those who also experience child maltreatment.

Second, many of the negative long-term mental and relational health outcomes that are associated with child maltreatment have also been associated with experiencing discrimination. Because of this overlap of symptoms, it is essential that these phenomena are studied together. Without considering discrimination, we may be contributing poor mental-health outcomes to child maltreatment when really the effects are coming from the experience of discrimination. This could be important in understanding the variability in outcomes for people who experience child maltreatment—specifically, why some people who experience child maltreatment have poor mental health outcomes while others do not.

Third, there is some evidence to suggest that those with complex trauma histories benefit less from empirically validated treatments than those without the same histories. For example, Cohen & Hien (2006), conducted a quasi-experimental design in which they recruited women with complex trauma and diagnoses of PTSD and substance use disorder. They randomly assigned the women into either a treatment group of cognitive-behavioral therapy or a control group. At the end of treatment, those who were in the CBT group had significantly lower scores on PTSD symptoms and alcohol use than the control group. However, there was no significant difference between the groups for depression, dissociation, and social and sexual functioning. The authors concluded that women who have complex trauma histories may need more specialized treatments that target their specific needs (Cohen & Hein, 2006).

Limitation of Single Trauma Studies

Due to the prevalence of child maltreatment, there is a large body of literature studying the effects of child maltreatment on mental-health outcomes in adulthood. There exists a wealth

of knowledge about the many potential negative outcomes for adult survivors of child maltreatment, which include various substance-abuse and mental-health disorders (Millar & Stermac, 2000; Kendler et al., 2000; Bendall, Jackson, Hulbert, & McGorry, 2008; Kendall-Tackett, 2002). Historically, research done on adult outcomes of child maltreatment has focused on a single type of abuse (i.e., physical, emotional, sexual, or neglect). A single type of abuse has often has been researched using samples from child welfare or by comparing those who experienced a single type of abuse with those who did not. While these studies have added to the existing body of literature and expanded our knowledge of the effects of violence, they are limited in a number of ways. First, evidence has shown that the co-occurrence of trauma is more common than a single type of trauma (Claussen and Crittenden, 1991). Second, when not controlling for the co-occurrence of trauma, it can be difficult to detect the difference in long-term effects of different kinds of trauma. Third, if co-occurring trauma is not accounted for, negative outcomes may be over-attributed to the particular trauma being studied and might be better accounted for by other factors. These three considerations will be reviewed below.

First, research has shown evidence that children rarely experience one type of abuse exclusively but are far more likely to experience multiple types of abuse (Clausen & Cirttenden, 1991). In a study of randomly selected child-abuse cases, fewer than 10% were classified as single-category abuse (McGee et al., 1995; Ney, Fung, & Wickett, 1994). Clausen & Cirttenden (1991), reported that sexual and physical abuse coexisted in 91% of their sample. In a study investigating the rates of childhood maltreatment in a community sample, of those participants who experienced child maltreatment, over one-third reported experiencing more than one type of abuse (Edwards, Holden, Felitti, & Anda, 2003). These studies point to the common occurrence of complex trauma.

Second, focusing on single categories of abuse relies on the assumption that the categories are discrete; however, the research shows that co-occurrence is common (Clauseen & Crittenden, 1991; Edwards, Holden, Felitti, & Anda, 2003). Therefore, if other types of abuse are not controlled for, there are likely participants in a single-type study who have also experienced other types of abuse. For instance, in a study investigating the effects of sexual abuse, if other types of abuse are not controlled for, it is likely some participants would have also experienced other types of abuse such as emotional abuse or neglect. This has the potential of adding heterogeneity to the sample, making it difficult to determine the impacts of sexual abuse alone. In studies in which comparisons are made among types of abuse, this heterogeneity effect can potentially decrease differences between groups and increase differences within the groups. This makes it more difficult to detect significant differences between the groups and therefore between abuse types (Edwards, Holden, Felitti, & Anda, 2003).

Lastly, a common limitation of studies looking at the adult outcomes of child maltreatment studies that confounding variables are often not controlled for (Briere & Elliott, 2003; Kolko, 2002). For example, non-childhood abuse related traumas may not be controlled for. Some adult traumas, such as interpersonal violence and rape, are highly correlated with childhood maltreatment. (Briere & Elliott, 2003). Statistically, it can be difficult to control for variables that are correlated with abuse (Davis, 1985; Pedhazur, 1982). However, not controlling for other common co-occurring factors could confound the results of studies examining the effects of childhood maltreatment. For example, it is possible that studies have credited negatives mental-health outcomes to experiencing childhood abuse when other factors could also explain the negative outcomes. For example, the experience of discrimination in adulthood has been tied to depression outcomes. If a study examines the connection between the experience of child

maltreatment and depression and does not control for participants' experiences of discrimination in adulthood, it would be difficult to determine what was responsible for the relationship, if one is found. Briere & Elliott (2003), illustrate this point in their study in which they examined the relationship among childhood physical and sexual abuse and psychological disturbances in adulthood in a community sample. They used hierarchal linear regressions to control for child demographics and adult experiences of trauma. While they still found a significant relationship among childhood physical and sexual abuse and adult psychological disturbances, the effect size was much smaller than in previous literature. These results suggest that by not accounting for other correlated variables, we could be over-contributing negative outcomes to childhood maltreatment. It is essential that we account for these other variables in order to have a more complete understanding of the complexities of human experience and how it affects mental health outcomes.

Cumulative and Additive theories

Two theories have been posited to account for the effects of complex trauma. The cumulative model suggests that any combination of abuse will have similar effects. The cumulative model states that it is the severity of abuse that matters rather than types of abuse (Chapman et al., 2004). The additive theory proposes that specific combinations of abuse will have different impacts on mental health diagnosis (Berzenski &Yates, 2011). It is important to test these two theories to determine if there are distinct impacts of specific combinations of maltreatment. If these differences are found it would have significant clinical implications. This information could be used to help inform population-specific clinical interventions. Currently there is a wealth of research stating that more severe experiences of maltreatment are connected to more severe long-term mental health outcomes (Ackerman et al., 1998; Bagley & Mallick,

2000; Bensely, Van Enwyk et al., 1999; Edwards et al., 2003; Harrison, Fulkerson, & Beebe, 1997; Parker, Maier, Wojciak, 2016). However, less is known if there are specific effects of different combinations of child maltreatment. Additionally, by adding in the variable of discrimination we will be able to create unique profiles that account for different types of child maltreatment as well as non-child abuse related trauma.

Latent Class/Profile Analysis for Child Maltreatment

To correct for the limitations of a single-category study, researchers have started to study multiple categories of abuse within one research study. Latent class analysis and latent profile analysis have been used as person-centered approaches to assigning each participant to a mutually exclusive profile. In this way, typologies can be developed from the strongest associations between types of abuse. For example, from a data set that includes four types of abuse (physical, emotional, sexual, and neglect), potential typologies that could be created are 1) physical and emotional, 2) sexual, physical and emotional, and 3) emotional and neglect. Each person would belong to one profile only. Once the groups are created, participants are assigned to the profiles based on their experience of the indicator variable, in this case trauma. Creating groups this way ensures that each person belongs to a single group, which increases the between-group difference and decreasing the in-group difference, making it easier to detect the difference between the groups and ensuring that there is no overlap between the groups.

Latent profile analysis studies have added to our understanding of how multiple types of maltreatment affect different kinds of mental and behavioral outcomes (Aebi et al., 2014; Armour, Elklit, & Christoffersen, 2014; Berzenksi & Yates, 2011; Charak & Koot, 2015; Hazen et al., 2009; Pears, Kim, & Fisher, 2008; Klika, 2014; Petrenko et al., 2012; Romano, Zoccolillo & Paquette, 2006; Walsh, Senn, & Carey, 2012). Latent profile/class analysis has been

conducted on a range of ages, from preschool into adulthood, and has included studies done within the U.S. as well as Western Europe, India, and Canada. These studies used multiple indicators of abuse to create mutually exclusive profiles. Common indicators of abuse included in these studies are physical abuse, emotional abuse, sexual abuse, and neglect. In addition to these more common indicators, some studies also included domestic violence and community violence in the creation of profiles (Berzenksi & Yates 2011; Walsh, Senn, & Carey 2012). These indicators have been shown through single category abuse studies to have negative effects on long-term mental-health outcomes in adulthood (Green et al., 2010; Maneta, Cohen, Schulz, & Waldinger, 2015; Mullen, Martin, Anderson, Romans, & Herbison, 1996). These studies have taken the next step to examine how these same indictors affect outcomes when traumas are co-occurring. This is essential due to the common co-occurrence of these types of traumas (Clemmons, Walsh, DiLillo, & Messman-Moore, 2007).

All of the studies reviewed using latent profile/class analysis were able to find profile solutions with good fits. In other words, for each study, it was possible to create meaningful profiles that fit the data well. The majority of the studies had three or four profile solutions with one of the profiles being a no- or low-maltreatment group (Aebi et al., 2015; Berzenksi & Yates, 2011; Armour, Elklit, & Christoffersen, 2014). For example, Aebi et al. (2015), a study of 260 male detained juvenile offenders in Austria, found a three-class solution to be the best fit: 1) no/mild trauma, 2) emotional and physical trauma, and 3) emotional, physical, and sexual trauma. However, there was one study that found just two profiles: 1) no report of child maltreatment and 2) multiple types of maltreatment. These studies set a precedent that using latent profile/class analysis fits well for studying complex trauma.

Studies differ in the makeup of their profiles. Some studies found the best-fitting model had profiles that all included multiple traumas, while other studies had profiles that included only a single type of trauma. For example, a study of 177 preschool-aged children who were in foster care found a profile solution in which each profile had multiple categories of abuse. The profiles found for this study were 1) supervisory neglect/emotional maltreatment, 2) sexual abuse/emotional maltreatment/neglect, 3) physical abuse/emotional maltreatment/neglect, and 4) sexual abuse/physical abuse/emotional maltreatment/neglect (Pears, Kim, & Fisher 2008). In a study conducted by Armour, Elklit, & Christoffersen (2014) of 24-year olds born in Denmark in 1984, the best-fitting solution had some profiles that contained only one type of trauma. The four class solution was 1) psychologically maltreated class, 2) sexual abused class, 3) abused overall, and 4) non-abused class. These studies show that while co-occurrence of trauma is common, it is important to derive the profiles from the data in order to best represent the experiences of a study's particular participants.

Once the profiles were created, ANOVAs or regression were used to determine profiles associated with various mental-health outcomes. These outcomes included cognitive functioning, academic performance, externalized and internalizing problems, high-risk sexual behaviors, and recidivism. Some studies found support for distinct associations between typologies and mental health outcomes (Aebi et al., 2014), while other studies found no difference in mental-health outcomes based on child maltreatment typologies (Hazen et al., 2009). The majority of the studies found mixed results in which some of the profiles different significantly from each other while others did not. For example, in the study of preschool-aged children, the sexual abuse/physical abuse/emotional maltreatment/neglect group had significantly higher means on

externalizing symptoms than the other three groups, but the other three groups did not differ from each other (Pears, Kim, & Fisher 2008).

The above studies have added to our understanding of how complex trauma affects long-term mental-health outcomes. By creating profiles using the common indicators of child maltreatment (physical, emotional, sexual, and neglect), we have been able to test if unique associations between child-maltreatment combinations and various mental and social outcomes exist. Adding different indicators of violence, such as community violence and witnessing domestic violence, has changed our understanding of complex trauma to include not just directly experiencing trauma by also witnessing it. This study will continue adding to our understanding of complex trauma by incorporating discrimination as an additional indicator of trauma. By adding experiences of discrimination to the profiles I create, I will be able to account for an additional type of trauma that has not be considered before.

Outcome Variables

This dissertation aims to examine the relationship between the co-occurrence of child maltreatment and discrimination and the subsequent outcomes of depression, anxiety, family support and family strain. While these negative outcomes have been studied in regards to child maltreatment and discrimination separately, there has been no investigation into the joint experience of being exposed to maltreatment in childhood and discrimination in adulthood. Exploring the associations that occur with depression, anxiety, and family support and family strain when both child maltreatment and discrimination are experienced can provide us more information on how co-occurring traumas affect mental and relational health. Knowing more about the complexity of trauma could have several clinical implications. If profiles with child maltreatment and discrimination are found to have higher rates of pathology, this could highlight

how important it is for clinicians to attend to both the experiences of child maltreatment and discrimination when treating clients for depression, anxiety, or family support and family strain. Assessing for child maltreatment is often common during the intake process of therapy; however, the same is not always true for assessing for experiences of discrimination (Reece, Hanson, & Sargent, 2014). This study could point to the importance of assessing for experiences of discrimination and incorporating those experiences into treatment plans to more holistically serve the population of clients who have experienced both.

Depression and anxiety. Depression and anxiety are considered two of the most prevalent mental-health disorders in the U.S. (World Health Organization, 2010). Depression is estimated to affect 6.7% of adults (Merikangas et al., 2011; World Health Organization, 2010). An estimated 18.1% of the general adult population has been diagnosed with anxiety (Kessler, Chiu, Demler, &Walters, 2005). The co-occurrence of depression and anxiety is common: approximately half of people diagnosed with depression are also diagnosed with anxiety (Anxiety and Depression Association of American, 2014). Both depression and anxiety can have major negative implications for those who suffer from them. Negative outcomes include social isolation, sexual dysfunction, impaired social skills, and lower quality of life (Ghaedi et al., 2010; Laurent & Simons, 2009; Lochner et al., 2003). Additionally, the economic burden of depression and anxiety to society is high and has increased over time. In 2005, the direct costs of depression were $77.5 billion; by 2010, those costs had increased by 27.5% to $98.9 billion (Greenberg, Gournier, Sisitsky, Pike, & Kessler, 2015). Additionally, Olfson and Gameroff (2007), found that primary care patients diagnosed with generalized anxiety disorder had higher medical-care costs than those without the diagnosis. Both depression and anxiety are common mental-health disorders that have high costs to both societies and to those who suffer from them.

Depression, anxiety, and child maltreatment. People who have experienced child maltreatment while growing up tend to have higher rates of depression and anxiety than those who did not experience abuse in childhood (Lindert, von Ehrensteing, Grashow, Gal, Braehler, & Weisskeopf, 2014; Weiss, Longhurst, & Mazure, 1999). Due to the connection between child maltreatment and depression and anxiety, it is important that we have clinical interventions that are effective treatments for this population of people. However, the experience of child maltreatment has implications for those who seek treatment for depression or anxiety. For those with histories of child maltreatment, there is some evidence to suggest that traditional therapies for depression, such as anti-depressants and CBFT, are less effective (Klein et al., 2009; Nanni, Uher, & Danese, 2012). Additionally, those who seek treatment for anxiety often do not reach full remission after initial treatment (Bruce, Heimberg, Goldin, & Gross, 2013). These findings suggest that those who have experienced child maltreatment may have unique clinical needs when being treated for depression and anxiety. Studying the complexity of trauma could provide us with more information to inform clinical practice and ultimately improve clinical outcomes for people who suffer from depression and/or anxiety.

Depression and anxiety outcomes have been well studied in the child-maltreatment literature (Chapman, Whitfield, Felitti, Dube, Edwards, & Anda, 2004; Dube et al., 2004). As mentioned previously, these studies have mostly utilized a single-type-of-abuse methodology and have not controlled for the co-occurrence of trauma. To correct for this limitation, many of the previous latent profile/class analyses included depression and anxiety as outcome variables (Pears, Kim, & Fisher; Petrenko et al., 2012; Aebi et al., 2015; Charak & Koot, 2015; Berzenksi & Yates, 2011). However, none of these studies included the experience of discrimination in their profiles. By replicating the use of depression and anxiety as outcome variables but

including the experience of discrimination into the profiles, I can add to the understanding of depression and anxiety in connection to the experience of complex trauma.

Depression, anxiety, and discrimination. There is a wealth of literature confirming the relationships between the experience of discrimination and psychological distress (Cochran & Mays, 2000; Cochran, Mays, Alegria, Ortega, & Takeuchi, 2007; Cochran, Sullivan, & Mays, 2003; Green, Davis, Karshmer, Marsh & Straight, 2005). These effects can be found for many different types of discrimination. For instance, links have been found between racial discrimination and depression and anxiety (Brown et al., 2000; Kessler, Mickelson, & Williams, 1999; Schulz, Gravlee, Williams, Israel, Mentz, & Rowe, 2006). Experiencing homophobia has also been linked to higher rates of depression for people who identify at LGBT (Newcomb & Mustanski, 2010). Religious discrimination has also been linked higher levels of anxiety and depression (Padela & Heisler, 2010). In a study that explored the link between sexism and depression and anxiety, the authors found that women who reported higher levels of experiencing sexism had statistically higher rates of depression and anxiety than their male counterparts. However, for women who reported lower levels of sexism, there was no difference between their levels of anxiety and depression than the levels of the males in the study (Klonoff, Landrine, & Campbell, 2000).

Having multiple-minority social status has also been linked to anxiety and depression outcomes. Landrine and Klonoff (1996), found that when studying sexism as a predictor variable for psychological distress, sexism was found to be a bigger predictor for minority women than for white women. This could suggest that the intersectionality of identity, or multiple indicators of identity (race class gender, etc.), could have an impact on the amount of discrimination that is experienced and how that discrimination is experienced.

Family support and family strain. Effect of child maltreatment on interpersonal relationships are documented. There is some evidence to suggest that experiencing abuse in childhood can make the formation and maintenance of healthy, functional relationships in adulthood more difficult for some people (Pearlman & Courtois, 2005). Women who have experienced sexual abuse can have lower levels of relationship satisfaction, can be less likely to trust in their romantic relationships, and can be less likely to enter into romantic relationships (DiLillo & Long 1999; Liang, William, & Siegel, 2006). Additionally, emotional maltreatment in childhood can predict higher levels of adult avoidant attachment (Riggs & Kaminski, 2010). Empirical evidence has been found to lend support to the assertion that the experience of child maltreatment can lead to worse interpersonal outcomes in adulthood.

While the effects of child maltreatment on adult romantic relationships have been explored, less is known about the effects of child maltreatment on long-term family outcomes (Halford, Sanders &, Behrens, 2000; Widom, Czaja, & Dutton, 2014). This problematic for several reasons. First, most children who experience child maltreatment have some kind of relationship with their families in adulthood. Although the most common reason that children enter foster care is the experience of abuse or neglect, only about a fifth of children who experience child maltreatment are removed from their homes (U.S Department of Health and Human Services, 2011); the majority of children remain with their families. When children are removed from their families, the goal of child protective services is, in most cases, to reunite families (U.S Department of Health and Human Services, 2011). Therefore, in many cases, children who experience child maltreatment from their families continue to have relationships with their families into adulthood. It is important that we study the long-term implications of child maltreatment on family relationships. First, exploring how complex trauma affects family

support and family strain is important for evidence-based clinical intervention. Second, there is some evidence to suggest that child maltreatment can lead to less family closeness in adulthood (Pitzer & Fingerman, 2010). However, these studies have not included complex trauma in their methodology. Studying the effects of multiple types of trauma on family closeness will allow for a more nuanced understanding of how negative life events both inside and outside of the family affect family support and family strain.

Family closeness and discrimination. Research on the effects of the experience of discrimination on family support and family strain is limited and in some instances conflicting. Many scholars discuss the family unit as being a common resource of resiliency for many people experiencing discrimination. Specifically, for social locations that are often shared by family members, such as race and religion, the family unit or community can buffer against the negative effects of discrimination (Williams, Neighbors, & Jackson, 2003). However when social locations are not accepted or nurtured by family member's, discrimination from families members can have negative effects on mental and relational health (Willoughby, Doty, & Malik, 2010; Ryan, Hubner, Diaz, & Sanchez, 2009). In the context of this study, it is difficult to tell how the discrimination indictors will affect the family support and family strain variables. It could be for some types of discrimination reports of family support will be actually higher than for profile without discrimination, due to the effect of families coming together in the face of inequities. However, for other types of discrimination where family rejection could exists, family closes will most likely be effective negatively, with profiles of that type of discrimination have less family support and more family strain than the other profiles.

As previously mentioned, child maltreatment and discrimination are both common problems within the U.S. (Allen, 2005; Coleman, 2003; U.S Department of Health and Human

Services, 2013). These social problems both have implications for mental and relational outcomes, specifically depression, anxiety and family support and family strain. Additionally, we know that complex trauma can lead to even worse mental and relational health outcomes (Courtois & Ford, 2012; Herman, 1992). If the results of this study show that people with co-occurring child maltreatment and discrimination have worse outcomes for depression, anxiety family support and family strain, this could have clinical implications. First, it would point to the importance of screening for both child maltreatment and discrimination at the beginning of therapy. Second, it would provide evidence towards the importance of incorporating discrimination into the treatment plan when treating people who have experienced child maltreatment and discrimination and are experiencing depression, anxiety and/or family dysfunction.

Summary

Child maltreatment and the experiences of discrimination are both widespread public health concerns. Both child maltreatment and the experience of discrimination have long term negative mental and relational health implications. These negative mental health and relational outcomes can include higher rates of anxiety, depression and PTSD as well as other mental health diagnosis. Due to its similarities in effects to other types of trauma, I argue that the experience of discrimination should be considered as a type of trauma. Feminist theory is a useful framework in understanding the importance of including discrimination into the analysis of child maltreatment and for the effects of discrimination on people with marginalized identities. When studying complex trauma for people with marginalized identities it is important to study child maltreatment and discrimination together. Historically, single category of trauma has been used to study child maltreatment. While, we have gained knowledge from this type of

design it is limited in few ways and does not allow for the complexity of trauma to be captured. Latent profile/class analysis has been used to correct the limitation of single type of trauma methodology. Although these studies have added to our understanding of complex trauma, none of them have incorporated the experience of discrimination into their analysis. By adding discrimination into the analysis we can better account for different types of trauma that can be co-occurring and having an effect of mental and relational health. Once the profiles are created their association with depression, anxiety, family support and family strain will be examined. If there are unique associations among the profiles with both discrimination and child maltreatment this will have clinical implications both for how we assess and treat complex trauma.

CHAPTER THREE

DATA AND METHODS

Introduction

In this chapter, the data and the analyses used to explore the research questions are presented. A description of the dataset is given, including the original purpose and sample characteristics. Additionally, details about the variables used in the analysis are presented. The first research question of "What are the distinct profiles of trauma?" will be answered using latent profile analysis. The remaining questions—"Do profiles with more complex trauma have higher rates of depression compared to profiles without trauma?" and "Do profiles with more complex trauma have higher rates of anxiety compared to profiles without trauma?" and "Do profiles with more complex trauma have lower reports of family support compared to profiles without trauma?" and "Do profiles with more complex trauma have higher reports of family strain compared to profiles without trauma?"—will be tested using analysis of variance (ANOVAs) and Tukey follow-up tests.

Data

Data for this study came from the Midlife Development in the United States (MIDUS). MIDUS was created to study the biological, psychological, and social factors of adults in midlife (MIDUS II; Ryff et al., 2012). The study includes a nationally representative sample of English-speaking adults from ages 25-77. The first MIDUS was conducted in 1995 and included 7,108 participants. Participants were selected via the telephone using random-digit dialing. MIDUS II was a follow-up longitudinal study to the MIDUS I study. The second wave of MIDUS was collected from 2004-2009 and included 4,963 participants. There was a 75% overall retention rate when adjusted for morality. All variables used in this study were collected within the same

wave of the MIDUS data, however the Childhood Trauma Questionnaire collects retrospective accounts and the other variables self-report data on current experiences.

All participants from MIDUS I were contacted to participate in the MIDUS II follow-up study. MIDUS II had five subprojects. All participants from MIDUS I were asked to participate in Project 1, which was follow-up questions from the original MIDUS, including psychosocial, sociodemographic, and health variables. Project 2 was a follow up for the portion of participants who were included in the daily diary study of MIDUS I. Project 3 was a follow-up from the cognitive assessment from MIDUS I and also included new cognitive assessments. Project 4 was a comprehensive biomarker assessment on a subsample of MIDUS II participants. These data were collected at three general clinical research centers located across the country (UCLA, University of Wisconsin, and Georgetown University). Project 5 was a neuroscience assessment of a subpopulation of participants from the biomarker project.

For the purposes of this dissertation, the biomarker project subsample of the MIDUS II was used. The biomarker project was designed to investigate the links among biological behavioral and psychosocial factors. This subsample includes 1,255 participants. All living participants from the first MIDUS deemed capable of traveling were considered eligible to participate in the biomarker project. Additionally, participants from the Milwaukee African American sample were also deemed eligible. Of the eligible participants, 54.9% chose to participate. The project was carried out at three general clinical research centers at UCLA, University of Wisconsin, and Georgetown University. Participants were required to travel to one of these three clinics for a two-day visit. Participants completed self-report health measures and underwent clinical assessments such as blood pressure measurement, heart rate variability, and a

physical exam. Additionally samples of blood, urine, and saliva were collected (Love, Seeman, Weinstein & Ryff, 2010).

The MIDUS II biomarker project was used for this inquiry for several reasons. First, MIDUS is a large nationally representative dataset. A large sample size is recommended for latent profile analysis (Wurpts & Geiser, 2014). Additionally, having a nationally representative non-clinical sample allows for generalizations that would not be appropriate to make otherwise. In the study of child maltreatment, child welfare samples are often used. While those studies have generated important findings for that specific population, generalizability is limited. This study seeks to examine the long-term effects of complex trauma on mental and relational health. Using a nationally representative sample will allow for broader conclusions to be made. Second, this dissertation is interested in the long-term implications of complex trauma on adult depression, anxiety, family support and family strain. Many of the large datasets that have included child maltreatment measures (including Fragile Families and LONGSCAN) have child and adolescent participants who have not yet reached adulthood; therefore, information about long-term mental and relational outcomes is not available. Third, MIDUS II includes established measures that comprehensively assess for anxiety, depression, and family support/strain. Having these measures allows for more certainty that the construct of interest (i.e. depression, anxiety, family support and family strain) is actually being measured. Lastly, the scales used to assess discrimination in the MIDUS II are unique in several ways. First, the questions do not specify a specific kind of discrimination but allow the participant to self-identify which social location(s) they believe lead to the discrimination. For example, rather than asking specifically about gender, the question gives a list of possible social locations and also includes "or other characteristics." This allows for the assessment to capture a broader experience of

discrimination. This broader conceptualization of discrimination fits with the purpose of this study, which seeks to understand the effects of a broader understanding of complex trauma on mental and relational health.

The biomarker project was used instead of the complete MIDUS II data set because three of the five variables for this project were asked only during the biomarker project (child abuse, depression, and anxiety). The biomarker variables were not used, as they do not directly relate to the research questions. Experiences of discrimination and family closeness were asked to the entire sample of MIDUS II participants but not specifically in the biomarker dataset. However, identification numbers from the overall MIDUS II project were linked to the identification numbers for the biomarker project and therefore these variables can be found for the biomarker participants.

Sample

The MIDUS II biomarker project included 1,255 participants. Of these participants, 57% identified as female and 78% identified as white. The mean age of the sample was 54, and the average income was $41,538. Most of the participants (52%) had a high school degree or higher. In comparison to the MIDUS II project, the participants in the MIDUS biomarker project were more educated and less likely to smoke (Love, Seeman, Weinstein & Ryff, 2010).

The sample used included 1051 participants. Of these participants, 54.7 percent identified as female and 93 percent as white. The mean age of the sample was 55. Details of how participants were reduced from 1,255 to 1,051 are outlined below.

Variables

The MIDUS biomarker project included established measures for childhood maltreatment, depression, and anxiety. These measures are Childhood Trauma Questionnaire (CTQ), Center for Epidemiologic Studies Depression Scale (CESD), and Spielberg Trait Anxiety Inventory. Discrimination was measured by questions specifically designed for the MIDUS I study. These same questions were replicated in the MIDUS II study.

Childhood Trauma Questionnaire

The Childhood Trauma Questionnaire is a 28-item retrospective self-report measure (Bernstein & Fink, 1997). These questions ask about trauma that occurred in childhood. For this inquiry, five scales of trauma were used as indicators for the creation of profiles. The trauma scales that were used are: physical abuse (questions 9, 11, 12, 15, 17), sexual abuse (questions 20, 21, 23, 24, 27), emotional abuse (questions 3, 8, 14, 18, 25), physical neglect (questions 1, 2, 4, 6, 26), and emotional neglect (questions 5, 7, 13, 19, 28). The CTQ includes an additional scale of Minimization/Denial that will not be used for this inquiry. The questions are scored for this study as Likert scale: 0- Never true, 1- rarely true, 2- sometimes true, 3- often true, 4- very often true. Questions 2, 5, 7, 10, 13, 16, 19, 22, and 28 are reverse-coded. The psychometrics for the total sample Cronbach's $\alpha = .88$, a mean score of 8.04 and standard deviation of 4.21. Participants were asked to rate the follow statements based on their experiences from their childhood and teenage years.

"When I was growing up…"

1. I didn't have enough to eat
2. I know that there was someone to take care of me and protect me
3. People in my family called me things like stupid, lazy or ugly
4. My parents were too drunk or high to take care of me

5. There was someone in my family who helped me feel that I was important or special
6. I had to wear dirty clothes
7. I felt loved
8. I thought that my parents wished I had never been born
9. I got hit so hard by someone in my family I had to see a doctor or go to the hospital
10. People in my family hit me so hard that it left me with bruises or marks
11. I was punished with a belt, a board, a cord, or some other hard object
12. People in my family looked out for each other
13. People in my family said hurtful or insulting things to me
14. I believe I was physically abuse
15. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor or doctor
16. I felt like someone in my family hated me
17. People in my family felt close to each other
18. Someone tried to touch me sexually
19. Someone threatened to hurt me or tell lies about me unless I did something sexual with them
20. Someone tried to make me do sexual things or watch sexual things
21. Someone molested me
22. I believe that I was emotionally abused
23. There was someone to take me to the doctor if I needed it
24. I believe that I was sexual abused
25. My family was a source of strength and support

Experience of Discrimination

The experience of discrimination questions were designed specifically for the MIDUS projects. These questions collect information on trauma that is currently occurring for the participants. The two scales of discrimination were used as indicators in the creation profiles. These scales are for lifetime and daily discriminatory experiences. Lifetime experiences are defined as one-time experiences or major incidences of discrimination, while daily experiences are defined as daily common or more subtle occurrences of discrimination. The questions were designed to be non-specific about the type of discrimination experienced. This was done in order to capture a wider scope of types of discrimination, including discrimination based on social locations not as commonly captured in the literature (Kessler, Mickelson, & Williams, 1999). Additionally, this approach of not defining the types of discrimination could also allow for the intersectionality of discrimination to be captured. For example, if a person identifies as a person

of color and a gay man, that person could experience discrimination based on both of those identities. More specifically worded questions could miss the nuances of how people actually experience discrimination in their lives.

The Lifetime discrimination variable was on a count scale with participants answering how often the following events have happened to them.

"In each of the following, indicate how many times in your life you have been discriminated against because of race, ethnicity, gender, age, religion, physical appearance, sexual orientation, or other characteristics."

1. You were discouraged by a teacher or advisor from seeking higher education
2. You were denied a scholarship
3. You were not hired for a job
4. You were not given a job promotion
5. You were fired
6. You were prevented from renting or buying a home in the neighborhood you wanted
7. You were prevented from remaining in a neighborhood because neighbors make like so uncomfortable
8. You were hassled by the police
9. You were denied a bank loan
10. You were denied or provided inferior medical care?
11. You were denied or provided inferior service by a plumber, car mechanic, or another service provider?

The following 9 question are aimed at capturing daily experiences of discrimination. Daily discrimination was answered on a Likert scale; participants were asked to pick the number that best fit their experience: 0 Never, 1. Once a week or more, 2. A few times a month, 3. A few times a year. The following 11 questions are aimed at capturing acute incidence of discrimination.

"How often on a day-to-day basis do you experience each of the following types of discrimination?"

1. You are treated with less courtesy than other people
2. You are treated with less respect than other people
3. You received poorer service than other people at restaurants or stores
4. People act as if they think you are not smart
5. People act as if they are afraid of you
6. People act as if they think you are dishonest
7. People act as if they think you are not as good as they are
8. You are called names or insulted
9. You are threatened or harassed

The following questions are aimed at identifying which kind of discrimination the participant perceived that they experienced. The question allows for multiple types to be selected. These questions will be used as a measure of description for each profile.

"What was the main reason for the discrimination you experienced? (If more than one check all that apply.)"

1. Your age
2. Your gender
3. Your race
4. Your ethnicity or nationality
5. Your religion
6. Your height or weight
7. Some other aspect of your appearance
8. Physical ability
9. Your sexual orientation
10. Some other reason

Center for Epidemiologic Studies Depression Scale

Depression was used as an outcome variable in the ANOVA to answer the second research question: "Do profiles with more complex trauma have higher rates of depression compared to profiles without trauma?" The Center for Epidemiologic Studies Depression Scale is a 20-item measure to assess symptoms of depression. The measure is made up of nine scales, which are associated with the characteristics of depression defined by the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders,* fifth edition. The

symptom scales are sadness, loss of interest, appetite, sleep, thinking/concentration, guilt, tired, movement, and suicidal ideation. Participants are asked to answer the questions based on how frequently they experienced the given situation over the previous week. The questions are asked on a Likert scale: 1- Rarely or none of the time, 2- Some or a little of the time, 3- Occasionally, 4- Most or all of the time. Questions 4, 8, 11, and 15 are reversed-coded. The psychometrics of the total sample were Cronbach's α=.89, a mean score of 8.67 and standard deviation of 8.13. The following are the questions on the CESD.

1. I was bothered by things that usually don't bother me
2. I did not feel like eating: My appetite was poor
3. I felt that I could not shake off the blues even with the help of my family and friends
4. I felt that I was just as good as other people
5. I had trouble keeping my mind on what I was doing
6. I felt depressed
7. Everything I did was an effort
8. I felt hopeful about the future
9. I thought my life had been a failure
10. I felt fearful
11. My sleep was restless
12. I was happy
13. I talked less than usual
14. I felt lonely
15. People were unfriendly
16. I enjoyed life
17. I had crying spells
18. I felt sad
19. I felt that people dislike me
20. I could not "get going"

Spielberg Trait Anxiety Inventory

Anxiety was used as an outcome variable in the ANOVA to answer the third research question: "Do profiles with more complex trauma have higher rates of anxiety compared to profiles without trauma?" The Spielberg Trait Anxiety Inventory is a 20-item measure to assess for anxiety (Spielberger, 1983). The questions are on a Likert scale of 1- almost never, 2-

sometimes, 3-often, and 4-almost always. The participants were asked to select the number that best fit how much fear or anxiety they generally feel in different situations. The psychometrics for the total sample were Cronbach α= .91, mean score of 34.28, and standard deviation 9.09. The following 20 questions were asked; questions 1, 6, 7, 10, 13, 16, and 19 are reverse-coded.

"Describe how you generally feel."

1. I feel pleasant
2. I tire quickly
3. I feel like crying
4. I wish I could be as happy as others seem to be
5. I am losing out on things because I can't make up my mind soon enough.
6. I feel rested
7. I am "calm, cool, and collected"
8. I feel that difficulties are piling up so that I cannot overcome them
9. I worry too much over something that really doesn't matter
10. I am happy
11. I am inclined to take things hard
12. I lack self-confidence
13. I feel secure
14. I try to avoid facing a crisis or difficulty
15. I feel blue
16. I am content
17. Some unimportant thought runs through my mind and bothers me
18. I take disappointments so keenly that I can't put them out of my mind
19. I am a steady person
20. I get in a state of tension or turmoil as I think over my recent concerns and interests

Family Support and Family Strain

Family support and family strain was used as an outcome variables in the ANOVA to answer the fourth and fifth research questions: "Do profiles with more complex trauma have lower reports of family support compared to profiles without trauma?" and "Do profiles with more complex trauma have higher reports of family strain compared to profiles without trauma?" To assess for family closeness, two scales of family strain and family support will be used. Each scale has four questions. The questions are asked on a Likert scale: 1- Often, 2- Some, 3- A little, and 4- Not at all. Questions 1-4 are used to measure family support, and questions 5-8 are used to

measure family strain. The psychometrics for family support for the total sample were Cronbach α=.84, mean score of 3.5, and standard deviation of .58. For family strain, the Cronbach α=.79, a mean score of 2.04, and standard deviation of .60.

1. Not including your spouse or partner, how much do members of your family really care about you?
2. How much do they understand the way you feel about things?
3. How much can you rely on them for help if you had a serious problem?
4. How much can you open up to them if you need to talk about your worries?
5. Not including your spouse or partner, how often do members of your family make too many demands on you?
6. How often do they criticize you?
7. How often do they let you down when you are counting on them?
8. How offend do they get on your nerves?

Data Analysis Plan

For this study, data analysis was done in four stages. First, a primary analysis of cleaning the data and calculating basic descriptive statistics of the data as done. Second, latent profile analysis was used to answer the first research question: "What are the distinct profiles of trauma?" Latent profiles were used to create mutually exclusive profiles of trauma using the variables of child maltreatment and discrimination. Third, once the profiles were generated, descriptive statistics of each profile was determined. Lastly, analysis of covariance was used to test the remaining research question of the associations between each profile and the outcome variables of depression, anxiety, and family closeness. *Mplus* (Muthén & Muthén, 2012) was used to conduct Latent Profile analysis and Statistical Package for the Social Sciences (SPSS; Version 22) was used to conduct the ANOVA's and follow up tests.

Preliminary Analysis

After approval from IRB was obtained, the data was downloaded from the Inter-University Consortium for Political and Social Research (ICPRSR) website. After the download,

the data was cleaned and screened for outliers and participants with missing data on all or most of the used variables. This process decreased the number of participants from 1,255 to 1,051. The steps took to decrease this number are outlined in chapter four. Composite scores were created for each scale used. Composite scales were created by adding the scores and dividing by the number of questions. Reverse coded questions was accounted for. Skewness, kurtosis, means and standard deviations were computed for each variable.

Latent Profile Analysis

Second, latent profile analysis was used to answer the first research question: "What are the distinct profiles of complex trauma?" Latent profile analysis allows for a person-centered statistical approach to creating mutually exclusive profiles. The profiles created contain variable clusters that co-occur within the same person. Latent Profile Analysis identifies clusters by creating profiles based off of similar values of the identified variables (Roesch, Villodas, & Villodas, 2010). In this case, variables of trauma were used to create profiles to see the most likely combination of trauma. The profiles indicate type and severity of trauma. Participants are assigned the profile that they are mostly likely to belong to based off their responses to the variables. For example, one profile could be created that had the high levels of sexual abuse, emotional abuse and physical neglect. The participant is assigned to this group due to their high likelihood of experiencing this combination of traumas. Participants can only be assigned to one profile. A primary goal of latent profile analysis is to increase the heterogeneity between the groups and the homogeneity within the groups. A strength of Latent Profile Analysis that that the variables do not need to be normally distributed (Pastor, Barron, Miller, & Davis, 2007).

In Latent Profile Analysis, the optimal number of profiles is determined by generating multiple profile solutions and utilizing goodness of fit indices to determine the best-fitting model

(Roesch, Villodas, & Villodas, 2010). Multiple goodness-of-fit statistics are used to determine which number of profiles best fits the data. No one fit statistic is sufficient on its own; the best-fitting model needs to be determined by giving consideration to multiple indices. Using the below mentioned fit indices is a recommend practice and common in the LPA literature (Aebi et al., 2014; Armour, Elklit, & Christoffersen, 2014; Nylund, Asparouhow, & Muthen, 2008; Pastor, Barron, Miller, & Davis, 2007). A strength of Latent Profile Analysis is, the multiple fit indices is allows for a more sophisticated determination of model fit (Pastor, Barron, Miller, & Davis, 2007).

The multiple fit indices used are outlined here. The Lo-Mendell-Ruben Adjusted likelihood ratio test (LMRT; Lo, Mendell & Rubin, 2001) determines the goodness of fit using long likelihood values that create distributions that can be compared. LMRT compares two profile solutions to determine if the more complex solution (i.e. three profiles) gives a statistically significantly better fit to the data than a less complex solution (i.e. two profiles). The bootstrapped likelihood ratio test (BLRT; Arminger, Stein, & Wittenberf, 1999; McLachlan & Peel, 2000) is similar to the LMRT in that it use distributions to statistically determine if a more complex solution is a better fit than a less complex solution; however, the way distributions are created differs in the two tests. Both indices generate p-values that determine which solution is the better-fitting model. A significant p-value signifies the better-fitting model. For instance, if a two-profile solution has a significant p-value and the three-profile solution has a non-significant p-value, then the two-profile solution is the better-fitting model. Akaike Information Criteria (AIC; Akaike, 1974) and Bayesian Information Criterion (*BIC*; Schwarz, 1978) and the sample size adjusted BIC (Sclove, 1987) all generated by comparing across possible model to determine best fit. The best-fitting model will have the smallest values. The final fit index generally used is

entropy (Ramaswamy, DeSarbo, Reibstein, & Robison, 1993). Entropy identifies the percentage of people that were assigned correctly to a profile. The best-fitting model is the one with a significant p-value for BLRT and LMRT, small AIC, BIC, and adjusted BIC values, and an entropy close to 1. Replicating other studies procedure and recommendations for fit statistics for LPA, I used all of the above mentioned fit statistics, as well as gave consideration to theory and profile size, to determine the best fitting model.

In this study, the profiles were created using the variables of child maltreatment and discrimination in adulthood. Specifically, I first generated profiles using the indicators of physical abuse, emotional abuse, sexual abuse, emotional neglect, physical neglect, acute discrimination, and chronic discrimination. According to a Monte-Carlo study conducted by Wurpts & Geiser (2014), larger data sets with more indicators allow for a better-performing Latent Profile Analysis. This study has a sample size of 1051 participants and uses six indicators.

The profiles were run using the seven variables: physical abuse, emotional abuse, sexual abuse, physical neglect, emotional neglect, daily discrimination and lifetime discrimination. Generating profiles is a recursive process. First, a one-profile solution was tested. Then, a two-profile solution was generated. The fit statistic between the one-profile and two-profile solutions were compared. The two-profile solution was a better fit, so a three-profile solution was generated. The process of comparing the fit statistics was replicated until six profiles were generated.

Conducting latent profile analysis with these variables did not yield good fit statistics. The variables were examined further and it was discovered that the lifetime discrimination variable had several problems. First, there were a few outliers that skewed the average by distorting the mean. When those outliers were deleted, the average score was close to zero.

Second, the lifetime discrimination variable was coded differently than the other variables. While the other variables were on a Likert scale, the lifetime discrimination variable was on a counting scale. This difference in scale made it difficult to make meaningful comparisons. When the profiles were generated the lifetime discrimination variable was low on each profile. In other words, the lifetime discrimination variable did not make a meaningful contribution to any of the profiles. It was determined due to these problems with the lifetime discrimination variable, it would be deleted, and the profiles would be generated again using the six variables of: physical abuse, emotional abuse, sexual abuse, physical neglect, emotional neglect, and daily discrimination.

The recursive process was replicated with the six trauma variables. Using the six variables yielded good fit statistics. The five-profile solution was a worse fitting model than the four-profile solution. Due to this the four-profile solution was determined to be the best-fitting model.

Once the four-profile solution was determined to be the best fitting model, participants were assigned profile membership. CPROBABILTY function in M*plus* was used to assign posterior probabilities (Muthen & Muthen, 2012). Posterior probabilities assign class membership to participants based on probability. All participants were assigned to one mutually exclusive profile that has the highest posterior probability (Hagenaars & McCutcheon, 2002). In other words, participants were assigned profiles based off of their responses to the trauma variables. (Hagenaars & McCutcheon, 2002; Rosech et al., 2010). These profiles are considerate latent because they are not directly measured but are derived from the response patterns of the trauma variables (Rosech et al., 2010).

Profile Descriptive Statistics

After the best-fitting profile solution was determined, descriptive statistics were conducted for each profile. First, demographic statistics were run to determine the percentage of each demographic within each profile. Demographics will included race, age, and gender.

ANOVAs

After the profiles were created, ANOVAs were conducted to answer the remaining research questions. Three initial ANOVAs were run. To answer the second research question—"Do profiles with more complex trauma have higher rates of depression compared to profiles without trauma?"—an ANOVA was conducted to compare the profiles on reports of depression. The ANOVA was statically significant at the .05 level, and Tukey follow-up test were then conducted. This test determined which profiles statistically differ from each other in rates of depression. This process was replicated for anxiety, family support and family strain.

Summary

This study seeks to explore how complex trauma affects long-term mental health and relational outcomes. MIDUS II, a nationally representative dataset, was used for this inquiry. Variables of child maltreatment and discrimination were used to create profiles of trauma. Specifically, the trauma variables were physical abuse, sexual abuse, emotional abuse, physical neglect, emotional neglect, acute discrimination, and chronic discrimination. Profiles were generated using latent profile analysis. After the profiles were created, ANOVAs and follow-up tests were conducted for each outcome variable of depression, anxiety, family support and family strain. This analysis provides evidence to determine if profiles with trauma have higher levels of mental and relational difficulty than profiles without trauma.

CHAPTER FOUR

RESULTS

Introduction

This chapter presents the results of the data analysis used to test the research questions. First, the descriptive statistics of each variable are given. Second, the profile analysis results are presented. Profile analysis was used to answer the first research question, "What are the distinct profiles of complex trauma?" A four-profile solution provided the best model fit. These profiles show the type of trauma that is co-occurring for the participants belonging to the profile. Fit statistics and profile descriptions are provided. For the final research questions, one way ANOVAs and follow up tests were conducted. The results of these tests are outlined below.

Preliminary Analysis

The data was cleaned and screened for missing data and outliers. During the cleaning process, answers that were coded as 98 or 998 to indicate missing variables were changed to "missing." Participants with missing data for key variables were deleted. 204 people were deleted because they had no response to the daily discrimination variable; this left an N of 1051. There was no information in the code book about why these questions were not answered. Cleaning the daily discrimination variable left the rest of the variables clean, and no other deletions were necessary. Means, standard deviation, skewness, and kurtosis were conducted for each variable. Table 1 presents these findings for each variable.

Table 1: *Mean, Standard Deviation, Skewness, and Kurtosis for Trauma and Outcome Variables*

	Mean	Standard Deviation	Skewness	Kurtosis	Range
Trauma Variables					
Physical abuse	1.81	2.88	2.81	9.89	0-25
Emotional abuse	3.05	4.22	1.89	3.41	0-25
Sexual abuse	1.61	3.98	2.96	8.53	0-25
Emotional neglect	4.77	4.57	4.57	.26	0-25
Physical neglect	2.10	3.98	3.56	.50	0-25
Daily discrimination	3.75	4.36	1.18	.94	0-36
Lifetime discrimination	19.03	133.17	7.24	50.57	0-500.0
Outcome Variables					
Depression	8.73	8.19	1.60	3.09	0-49.0
Anxiety	34.2	9.05	.848	.43	22-69
Family support	3.79	.42	-2.83	10.68	1-4
Family strain	1.71	.45	.57	.35	1-4

Table 2: *Correlations of Trauma Variables*

	1	2	3	4	5	6	7
Emotional Abuse	--	.66**	.38**	.70**	.37**	.29**	-.03
Physical Abuse		--	.36**	.54**	.31**	.26**	.01
Sexual Abuse			--	.31**	.21**	.18**	.04
Emotional Neglect				--	.50**	.25**	.00
Physical Neglect					--	.20**	.02
Daily Discrimination						--	.00
Lifetime Discrimination							--

Latent Profile Analysis

To answer the first research question—"What are the distinct profiles of complex trauma?"—a latent profile analysis was used to generate profiles of trauma. First, the trauma models were generated using seven trauma variables: physical abuse, emotional abuse, sexual abuse, physical neglect, emotional neglect, daily discrimination, and lifetime discrimination. However, as mentioned in chapter three, this did not yield good fit statistics. After examining the lifetime discrimination variable, problems with the variable became clear, and the variable was deleted. Analysis was run again with six variables: physical abuse, emotional abuse, sexual abuse, physical neglect, emotional neglect, and daily discrimination.

The profiles were generated again using the six remaining trauma variables. The six trauma variables generated a well-fitting model. Fit statistics determined a four-profile solution to be the best-fitting model. In accordance with the recommended fit indices for Latent Profile Analysis, AIC, BIC, ad BIC, Entropy, VLMR, and Lo Mendell were used (Lo Mendell, & Rubin, 2001; Nylund, Asparouhow, & Muthen, 2008; Pastor, Barron, Miller, & Davis, 2007) A table of fit statistics is provided below. A four-profile solution provided the best model fit for all five fit indices and indicated a well-fitting model.

Table 3: *Model Fit Statistics for Models Comparing 1 through 6 Profiles for Trauma Variables*

# of Groups	AIC	BIC	Ad BIC	Entropy	VLMR	P value	Lo Mendell	P value
1	50757.162	50900.939	50811.998					
2	30906.398	31065.038	30963.401	.990	-15988.421	.001	1118.370	.001
3	30389.910	30598.125	30464.727	.985	-15421.199	.07	528.886	.07
4	**29858.525**	**30116.315**	**29951.155**	**.993**	**-15152.955**	**.02**	**543.572**	**.02**
5	29898.093	30205.458	30008.537	.992	.15152.955	.03	528.022	.04
6	29568.391	29696.646	29696.648	.976	-14675.01	.88	-73.318	.88

AIC = Akaike's Information Criterion, BIC = Bayesian Information Criterion
Ad BIC – Adjusted Bayesian Information Criterion, VLMR = Vuong-Lo-Mendall-Rubin Likelihood Ratio Test
Bold indicates best fitting profile.

Posterior probabilities for each of the four profiles were generated for each participant. Based on the probabilities, 887 participants were categorized in profile 1, 80 participants in profile 2, 53 participants in profile 3, and 31 participants in profile 4. Total participants were N=1051. For the first profile, the average posterior probability for those assigned to the profile was 99%, 99% for the second profile, 99% for the third profile, and 98% for the fourth profile was.

Figure 2: Four Profile Solution of Trauma

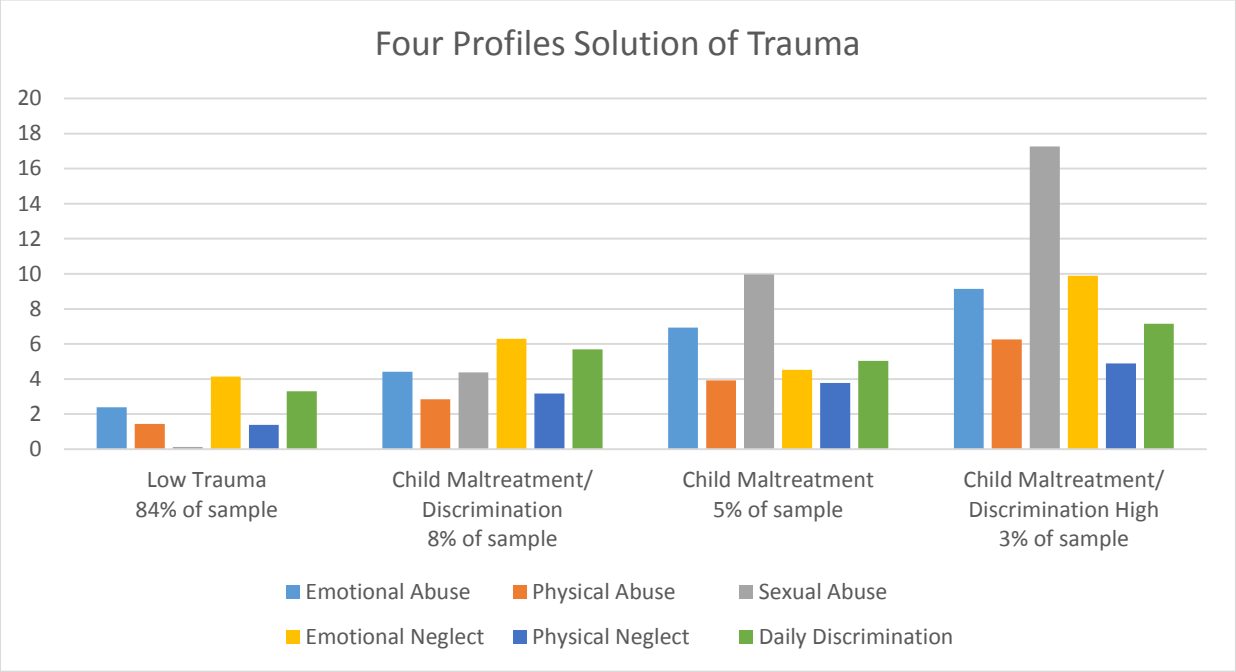


Figure 2 displays the four-profile solution for trauma. The first profile was named Low Trauma. The Low Trauma profile had the greatest number of participants (84% of the sample) and has the lowest levels of abuse. The mean scores for Low Trauma are as follows: Emotional abuse M=2.38 Physical abuse M= 1.44, Sexual abuse M= .12, Emotional neglect M= 4.14, Physical neglect M=1.39, and Daily Discrimination M=3.30. This profile has the lowest means across all four profiles for each variable. Additionally, all of the variables had lower means than the overall mean of the sample.

The second profile was named Child Maltreatment/Discrimination profile. The Child Maltreatment Discrimination profile included 8% of the sample. The mean scores for the Child Maltreatment/Discrimination profile were as follows: Emotional abuse M=4.41, Physical abuse M=2.85, Sexual Abuse M=4.38, Emotional neglect M=6.3, Physical neglect M=3.17, and Daily Discrimination M=5.27. All of the trauma variables had higher means than the overall sample mean. In comparison to the profiles of Child Maltreatment profile and Child Maltreatment/

Discrimination High, this profile had lower means for all of the child maltreatment trauma variables. However, this profile had higher levels of daily discrimination than the Child Maltreatment profile. All of its trauma variables means were higher than the Low Trauma profile.

The third profile was named Child Maltreatment profile. The Child Maltreatment profile had 5% of the sample. The mean scores for the Child Maltreatment profile were as follows: Emotional abuse M=6.94, Physical abuse M=3.92, Sexual abuse M=9.96, Emotional neglect 4.52, Physical neglect M= 3.77, and Daily Discrimination M=5.03. All of the trauma variables had higher means than the overall sample means. This profile had higher levels of child maltreatment variables than the Low Trauma profile and the Child Maltreatment/ Discrimination profile. All of the trauma variables for this profile have lower means than the Child Maltreatment/ Discrimination profile.

The fourth profile was named Child Maltreatment/Discrimination High. The Child Maltreatment/Discrimination High profile was 3% of the sample and had the highest levels of abuse of any profile. The mean scores for the Child Maltreatment/Discrimination High profile were as follows: Emotional abuse M=9.14, Physical abuse M=6.26, Sexual abuse 17.27, Emotional neglect M=9.89, Physical neglect M=4.89, and Daily Discrimination M=7.16. For all six variables, these means were the highest level of trauma across all four profiles.

Demographic characteristics were calculated for each profile. The results are provided below in Table 3. Statistically significant differences among the profiles were found for gender and age. The Child Maltreatment/Discrimination, Child Maltreatment and Child Maltreatment/Discrimination High profiles were all more likely to be female when compared to

the Low Trauma profile. The Child Maltreatment/Discrimination High profile was more likely to be younger than the Low Trauma profile. No other demographic differences were found.

Table 4: *Demographic Characteristics for Trauma Profiles*

	Low Trauma	Child Maltreatment / Discrimination	Child Maltreatment	Child Maltreatment/ Discrimination High
% Female	51%	30%	25%	91%
Mean Age	55.43	55.89	54.51	50.45
Race				
White	93%	90%	93%	90%
African American	3%	1%	4%	7%
Native American	1%	2.5%	4%	0%
Asian	.3%	0%	0%	0%
Other	2%	6%	4%	3%

ANOVAs

One-way ANOVAs were conducted to answer the remaining research questions: Do profiles with more complex trauma have higher rates of depression compared to profiles without trauma? Do profiles with more complex trauma have higher rates of anxiety compared to profiles without trauma? Do profiles with more complex trauma have lower reports of family support compared to profiles without trauma? and Do profiles with more complex trauma have higher reports of family strain compared to profiles without trauma? Table 4 below presents the findings of the one-way ANOVA tests between the profiles on each outcome variable.

Table 5: *One-way ANOVAs of Profiles and Outcome Variables*

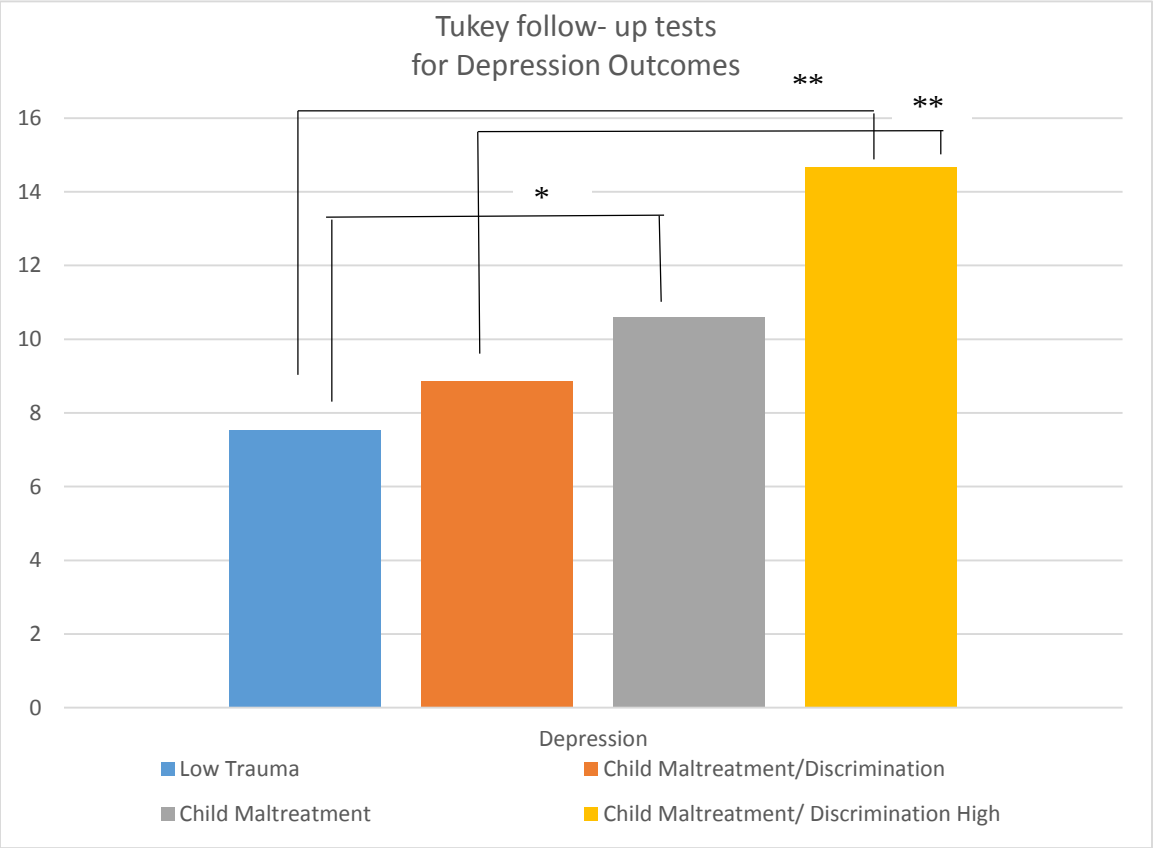
	Low Trauma M (SD)	Emotional Abuse/Emotional Neglect/Daily Discrimination M (SD)	Child Maltreatment M (SD)	Child Maltreatment/Discrimination High M (SD)	F
Depression	7.54 (7.30)	8.86 (7.58)	10.60 (10.32)	14.68 (10.42)	11.46**
Anxiety	32.97 (8.46)	35.58 (10.20)	36.91 (8.94)	39.87 (10.30)	10.89**
Family Support	3.80 (.38)	3.80 (.48)	3.60 (.65)	3.65 (.75)	5.42**
Family Strain	1.70 (.44)	1.77 (.51)	1.84 (.42)	1.83 (.50)	2.75*

*significant at the .05 level ** significant at the .01 level

A significant difference in depression scores was found among the four profiles of trauma (F=11.46 P=.000). Tukey follow-up tests were conducted; a graph of the results is below. A significant difference in depression outcomes was found between the Low Trauma profile and the Child Maltreatment profile (P=.023), with Low Trauma having lower levels of depression than Child Maltreatment. There was also a significant differences between Low Trauma and Child Maltreatment/Discrimination High profile (P=.000), with Low Trauma having lower levels of depression than Child Maltreatment/Discrimination High. Additionally, there was a significant difference between Child Maltreatment/Discrimination and Child Maltreatment/Discrimination

High (P=.002), with Child Maltreatment having lower levels of depression than Child Maltreatment/Discrimination High. No other significant difference in depression scores among the groups was found.

Figure 3*: Tukey Follow-Up Test for Depression Outcomes*

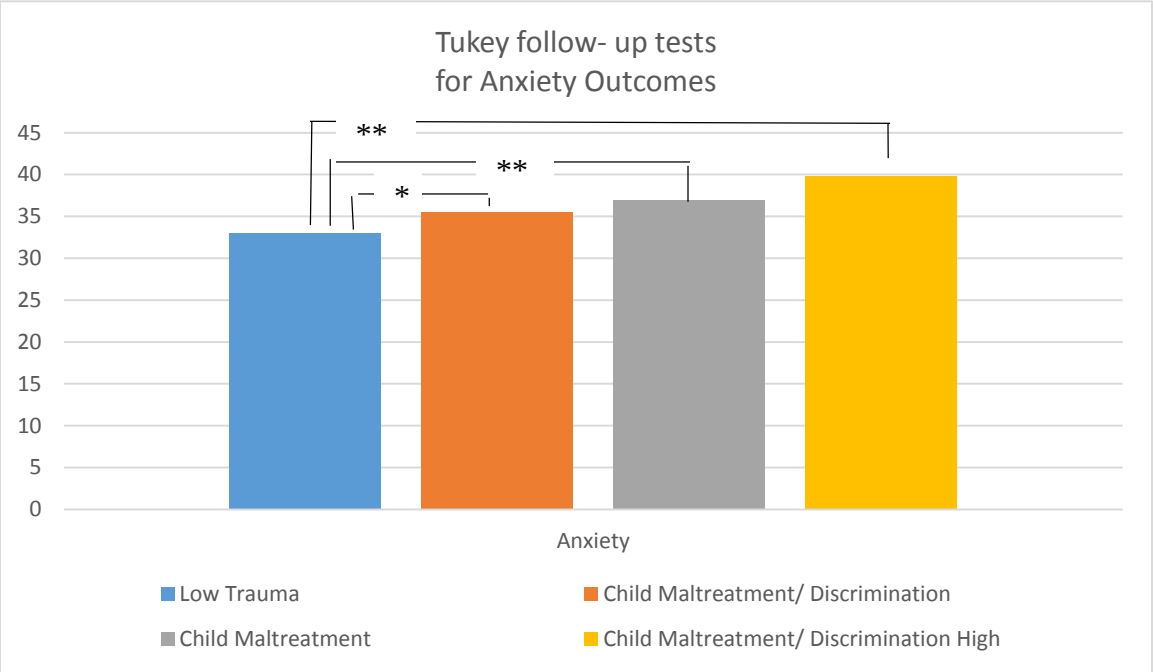


(* indicates significance at .05 level ** indicates significance at .01 level)

A significant difference in anxiety scores was found among the four profiles of trauma (F=10.89, P=.000). Tukey follow-up tests were conducted; a graph of the results is below. There was a significant difference in anxiety outcomes between Low Trauma and all of the other profiles—Child Maltreatment/Discrimination (P=.05), Child Maltreatment (P=.08), and Child Maltreatment/Discrimination High—(P=.000)with Low Trauma having lower levels of anxiety than Child Maltreatment/Discrimination, Child Maltreatment, and Child

Maltreatment/Discrimination High. No other significant difference in anxiety scores among the groups was found.

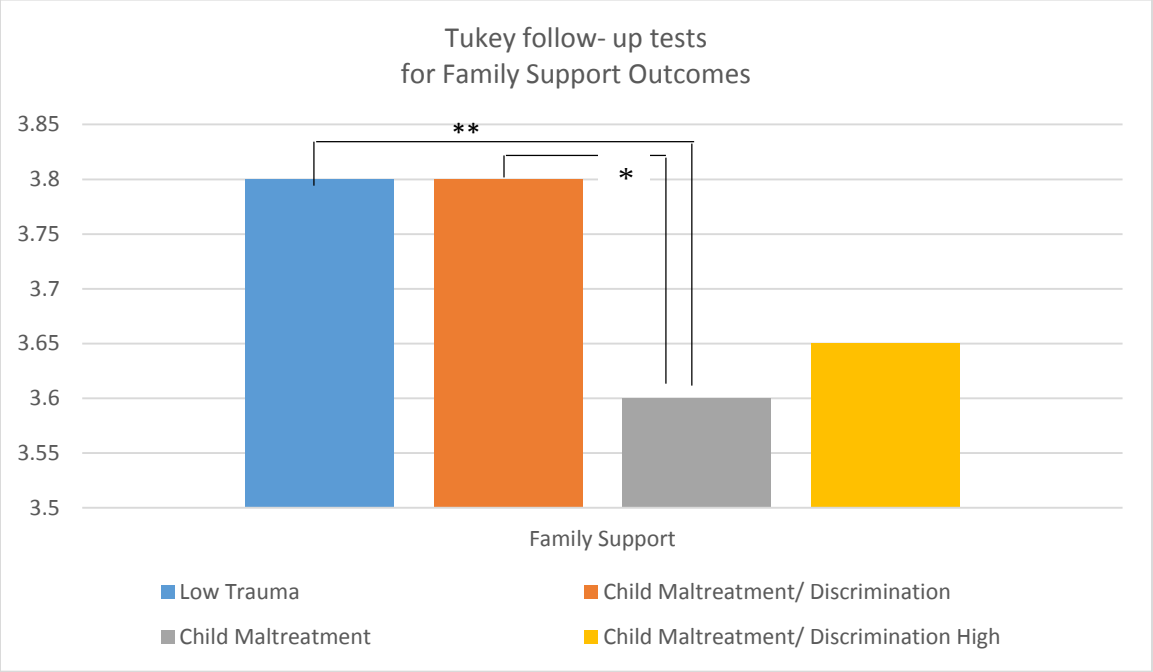
Figure 4: *Tukey Follow-Up Tests for Anxiety Outcomes*



(* indicates significance at .05 level ** indicates significance at .01 level)

There was a significant difference in family support scores among the four profiles of trauma (F=5.42, P=.001). Tukey follow up tests were conducted; a graph of the results is below. There was a significant difference in family support outcomes among Low Trauma and Child Maltreatment (P=.002) and Child Maltreatment/Discrimination () and Child Maltreatment (P=.033). Higher levels of family support were found for Low Trauma than for Child Maltreatment, and higher levels of family support were found for Child Maltreatment/Discrimination than for the Child Maltreatment profile. No other significant difference in family support outcomes was found between profiles.

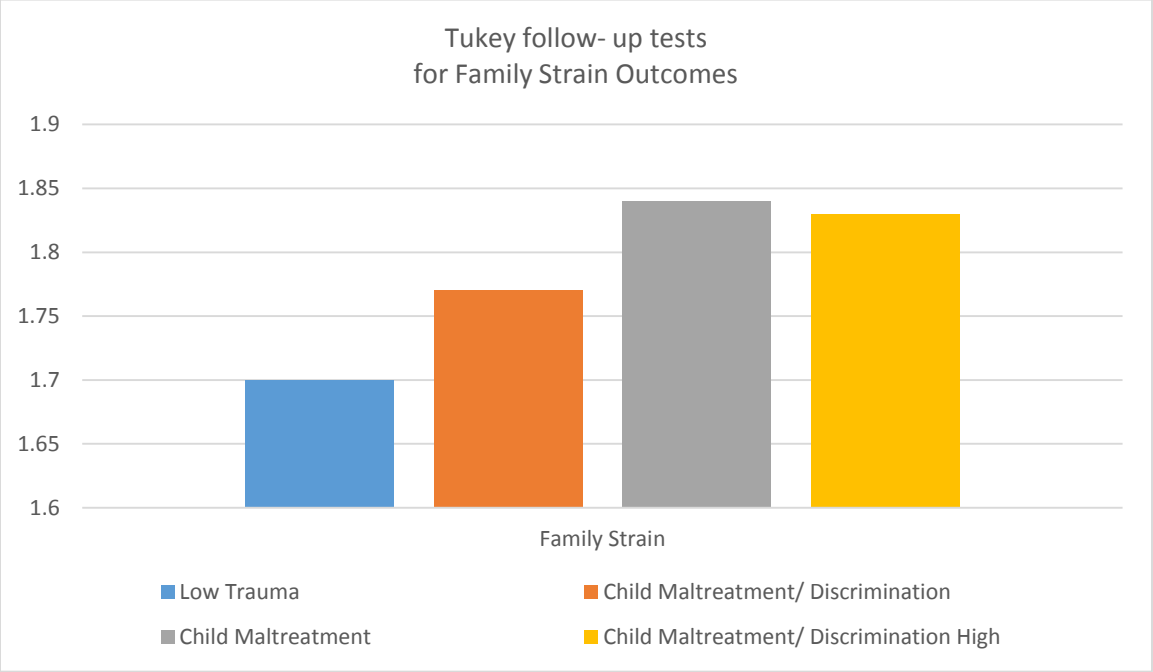
Figure 5: *Tukey Follow-Up Tests for Family Support Outcomes*



(* indicates significance at .05 level ** indicates significance at .01 level)

There was a significant difference in family strain scores among the four profiles of trauma (F=2.75, P=.042). Tukey follow-up tests were conducted; a graph of the results is below. No significant difference in family strain outcomes were found.

Figure 6: *Tukey Follow-Up Tests for Family Strain Outcomes*



Summary

Latent profile analysis, one-way ANOVAs, and Tukey follow-up tests were used to answer this study's research questions. A four-profile solution was found to have the best model fit. Based on the results, the profiles were named Low Trauma, Child Maltreatment/Discrimination, Child Maltreatment, and Sexual Abuse/Emotional Abuse/Physical Neglect. All the one-way ANOVAs yielded significant results. There was a significant difference in depression outcomes between Low Trauma and Child Maltreatment and Child Maltreatment/Discrimination High. There was also a significant difference between Child Maltreatment/Discrimination and Child Maltreatment/ Discrimination High. There was a significant difference in anxiety outcomes between Low Trauma and each of the other profiles. There was a significant difference in family support outcomes between Low Trauma and Child Maltreatment and between Child Maltreatment/Discrimination and Child Maltreatment. No significant difference in family strain was found.

CHAPTER 5

DISCUSSION

Introduction

The goal of this study was to use feminist theory as a frame to examine how experiencing different combinations of child maltreatment and social discrimination affect long-term mental and relational outcomes. Chapter two explored the importance of considering complex trauma when looking at the associations between trauma and long-term outcomes. People who have experienced more than one type of trauma tend to have worse mental health and relationship outcomes than those who experience a single type of trauma (Courtois & Ford, 2012; Greeson et al., 2011; Herman, 1992). These traumas can occur at the same time or over time. Due to the worse outcomes of complex trauma, it is important to consider multiple types of trauma that people have experienced when assessing new clients and developing treatment plans. Child maltreatment and the experience of social discrimination are two common forms of trauma (Allen, 2005; Coleman, 2003; Coleman, Darity, & Sharpe, 2008; U.S Department of Health and Human Services, 2013). While the negative effects of child maltreatment and social discrimination have been studied separately, they have never been examined together. In this study, discrimination was studied alongside child maltreatment.

Latent Profile Analysis was used to create mutually exclusive profiles that grouped people together based on their experiences of the trauma variables. The childhood maltreatment variables were collected as retrospective reports of abuse that happened in childhood. The discrimination variables collected information about current trauma sustained from experiencing discrimination due to having a marginalized identity. Therefore, this study includes the experience of sustaining trauma over time. This controls for the limitation of not addressing

potentially confounding trauma identified by Briere and Elliott (2003) and others. As outlined above, Briere and Elliott (2003) stated that there are many traumas in adulthood that are associated with experiencing childhood maltreatment. If these adult traumas are not accounted for it is possible that negative mental and relationship health outcomes are being over-attributed to childhood trauma. This study controlled for one potentially confounding trauma of discrimination.

In previous literature, the importance of considering multiple types of trauma has been established. Those who have experienced multiple types of trauma, or complex trauma, tend to have worse mental and relational outcomes. A feminist framework conceptualizing discrimination as a type of trauma is important for several reasons: First, feminism views individual pathology as a symptom of the greater society manifesting within the individual rather than as a flaw residing within the individual person. It is for this reason that feminism would argue that it is important to emphasize discrimination faced because of social identity rather to emphasize social location itself. Second, by conceptualizing discrimination as trauma, feminism contextualizes the effects of discrimination validates the very real negative effects of experiencing discrimination.

Analysis of covariance was used to determine the relationship between each profile and the mental health and relational outcomes of anxiety, depression, family support, and family strain. The results showed some support for including discrimination into an analysis of effects of trauma on long-term mental and relational health. In this chapter, the results of the research hypothesis will be discussed along with possible clinical implications and limitations of the study.

Latent Profile Analysis

Latent profile analysis was used to create profiles using different types of trauma. A four-profile solution was found to be the best fit. The four profiles were Low Trauma, Child Maltreatment/Discrimination, Child Maltreatment, and Child Maltreatment/Discrimination High. Some level of all of the trauma variables were present in all the profiles; the names given to the profile represent the characteristics most prominent in that profile. All of the profiles contained multiple types of trauma, and therefore all four profiles were considered complex trauma. Two of the four had prominent variables of the two different types of trauma variables—child maltreatment and discrimination.

Profiles

The Low Trauma profile had low levels of all the trauma variables. Sexual abuse had the least frequent occurrence, with a mean close to zero, while emotional neglect had the highest rate of occurrence in the profile. The majority of the previous studies using child abuse variables and LPA/LCA reviewed in Chapter Two contained one profile that had no or little violence; this profile contained the highest number of individuals of the study's profiles (Aebi et al., 2015; Berzenksi & Yates, 2011; Armour, Elklit, & Christoffersen, 2014). In this study, the Low Trauma profile represented 84% of the sample, which is consistent with previous literature. Combined, the three profiles of Child Maltreatment/Discrimination, Child Maltreatment, and Child Maltreatment/Discrimination High make up 18% of the sample. This is consistent with other findings from community samples. For instance, Hazen et al (2009) and Romano et al., (2006) both found about 20% of their participants fell into their maltreatment profiles.

Two of the profiles were distinguished by having co-occurring child maltreatment and discrimination trauma variables. These were the Child Maltreatment/Discrimination and Child

Maltreatment/Discrimination High profiles. These profiles together made up 11% of the sample. The Child Maltreatment/Discrimination High profile contained the highest level of trauma on all of the trauma variables of any of the profiles.

The Child Maltreatment profile contained predominately child maltreatment trauma variables. This profile included the discrimination variable; however, the rate of discrimination in this profile was lower than any of the other profiles, excluding the low trauma group.

The sample used for this study was predominantly white. It is possible if there was more racial diversity the profiles created would differ than the ones in this study. While this study is able to look at other times of discrimination, its ability to study racial discrimination is limited. The lack of racial diversity in the sample limits the ability for this study to be generalize to racial discrimination.

All three profiles of Child Maltreatment/Discrimination, Child Maltreatment, and Child Maltreatment/Discrimination High were more likely to be female than the Low Trauma profile. There was no other demographic difference among the profiles. These findings are somewhat consistent with previous research. Armour, Elklit, and Christoffersen (2014) found women were more than 34 times more likely to belong to the sexually abused group than their male counterparts. Klika (2014) found little difference between typologies for men and women; however, he found that women were far more likely to belong to the sexual abuse class than men were. In congruence with these previous findings, the profiles in this study that were more likely to be female all had higher levels of sexual abuse than the Low Trauma group. No other demographics have been tested in previous studies, so comparisons to this study are unknown.

ANOVAs

A main aim of this study was to investigate if profiles with complex trauma had higher rates of depression, anxiety, and family strain and lower rates of family support. It was hypothesized that profiles with both discrimination and child maltreatment trauma variables would differ from profiles with discrimination or child maltreatment alone. Because all of the profiles contained complex trauma, the research questions cannot be fully answered in their original form. As outlined above, all the profiles contained some amount of all of the trauma variables; however, one profile, the Low Trauma profile, had low levels of all of the trauma variables. Due to these results, the Low Trauma profile was used as a comparison against the other profiles with higher levels of trauma.

One-way ANOVAs were conducted for the outcome variables of depression, anxiety, family support, and family strain. The ANOVAs were statistically significant for each of the outcome variables. Tukey follow-ups were conducted to determine which profiles had different levels of the various outcomes.

Mental Health Outcomes

Overall, the results for depression and anxiety support the hypothesis that the severity of trauma variables matters more for the mental health outcomes than the combination of trauma variables. In other words, the results show that higher rates of depression and anxiety seem to be linked to the *amount* of trauma experienced rather than the *type* of trauma. These findings support the cumulative theory that type of traumas matter less than the severity of multiple traumas. This study's findings are consistent with the findings of previous studies that supported also support that cumulative theory that those who experienced higher amounts of trauma in childhood were more likely to experience psychological maladjustment in adulthood when

compared to those who had not experienced maltreatment or those who experienced as single type of maltreatment (Ackerman et al., 1998; Bagley & Mallick, 2000; Bensely, Van Enwyk et al., 1999; Edwards et al., 2003; Harrison, Fulkerson, & Beebe, 1997; Parker, Maier, Wojciak, 2016).

While previous literature has found that the severity of child maltreatment matters more to adult outcomes than abuse, discrimination was not previously included in trauma variables tested. According to feminist theory, including discrimination into the conceptualization of trauma allows for a more complete understanding of a person's lived experience. It is theorized that this more complete understanding can be important to clients in several ways: First conceptualizing discrimination as trauma provides validation that experiences of trauma are real and potentially damaging to the people who experience them. Second, it places the blame on external experience (i.e. the discrimination) rather than on internal pathology. This study's findings lend empirical validation to that theory. The profile with the most severe discrimination and child maltreatment experienced the worst mental health outcomes. Overall, this study did not find major difference between profiles of different combinations of trauma but rather profiles of different severity of trauma.

This study found support that discrimination has similar negative results as the child maltreatment variables. However, results did not find support that discrimination had its own unique association with mental house outcome. In other words, simply having discrimination in the profile didn't make the profile "worse off" than a profile that did not. The profile needed to have high levels of both discrimination and child maltreatment to have worse mental health outcomes. This study did not include much racial diversity. It is possible that this outcome could

be different with a sample that had more racial diversity and therefore presumably more racial discrimination.

Clinical Implications. These results have important implications for the clinical room. The feminist argument of considering discrimination as a type of trauma was supported by the findings. Adult experiences of discrimination can lead to worse anxiety and depression outcomes. Those with increased co-occurrence of child maltreatment and discrimination were found to have increased anxiety and depression outcomes. This points to the need for assessing for discrimination during therapy. As mentioned previously, while accessing for maltreatment in childhood is fairly common in a clinical setting, asking about current discrimination is less common (Reece, Hanson, & Sargent, 2014). However, these results suggest that high levels of childhood trauma and high levels of discrimination can have negative effects on depression and anxiety. According to feminist theory, if the clinician is not conceptualizing the case through a larger systemic lens (ie. Discrimination) they run the risk of framing the clients symptoms as internal pathology instead of a symptom of a sick society. Additionally, if clinicians are not accessing for discrimination they could be missing an important aspect of treatment planning. Not incorporating discrimination into case conceptualizing as well as treatment planning could be a missed opportunity for clinicians to address a more complete aspect of their client's trauma experience. Addressing complex trauma in the form of both childhood experience of maltreatment and current experiences of discrimination could allow for a more nuanced approach to trauma-informed care.

The results also suggest that those who experience less frequent discrimination won't necessarily have negative mental health outcomes. This finding could also be important for clinicians when conceptualizing causes even if there are not severe symptoms of anxiety or

depression. In some cases, there could still be an experience of discrimination present even without the presentation of anxiety or depression. This points to the need for future research to examine the potential resiliency factors of those who experience discrimination but not anxiety or depression. This further research could provide more information about the pathway of resiliency that people who experienced discrimination employ. This could, in turn, help clinicians help clients heal and move forward from their complex trauma.

Relational Health Outcomes

The results found for family support and family strain were inconsistent with the original hypothesis. The hypothesis stated that profiles with less complex trauma would have higher levels of family closeness. This hypothesis was only partial supported. Some differences were found for family support among the profiles, but no differences were found for family strain. There has been a dearth in the literature of the study of the long-term effects of child maltreatment on family relationships. This is an important area of research due to the common occurrence of people who experience child maltreatment in childhood continuing their relationship with their parents into adulthood (Pitzer & Fingerman, 2010).

The literature on the effects of discrimination on family closeness has been mixed. For discrimination based on social location shared by family members (i.e. race and religion), the family has often been cited as a source of support and resiliency (Williams, Neighbors, & Jackson, 2003). However for discrimination based on social locations not shared by family members (i.e. sexual identity and gender identity), family can be a source of further discrimination (Willoughby, Doty, & Malik, 2010; Ryan, Hubner, Diaz, & Sanchez, 2009). This study included both types of discrimination.

According to the results of this study, family support and family strain have less difference among the profiles than depression and anxiety. In other words, there were only a few differences among the profiles for family strain and support. These results were surprising. According to feminist theory and previous literature on effects of child maltreatment in adulthood, it would be expected that family support and family strain would be affected by the experience of trauma (either positivity or negatively). Feminist theory would support that interpersonal violence, both in the form of child maltreatment and discrimination, would lead to worse relational outcomes. However, this study only partially supports this assertion.

Some differences were found for family support. The Low Trauma profile and Child Maltreatment/Discrimination profile had higher levels of family support than the Child Maltreatment profile. It would be expected that differences would also be found for Child Maltreatment/Discrimination High; however, this was not the case. The profiles with discrimination had higher levels of family support even though they also contained child maltreatment. There could be a few explanations for this: Many of the discriminated-against demographics are discriminated against are shared by family members. It could be that people turned to their family members for support when they experienced discrimination. This could improve family relationships even if there was a history of child maltreatment. This assertion is consistent with the results of Williams, Neighbors, & Jackson, 2003, who found that families and communities can help booster resiliency against negative effects of discrimination. Second, the average age of participants was between 50 and 60. It could be that child maltreatment has less of an effect on relational outcomes over time. It is possible that relationships improved over time, and although abuse occurred in childhood, the current family relationships are not abusive. More information about participants and their families is needed in order to confirm this

hypothesis. It could be necessary to study families longitudinally to see if certain changes in family relationships over time can lead to better family relational outcomes for families in which child maltreatment was present.

Limitations

While the results of this study have implications for including discrimination when studying complex trauma, there are several limitations to this study. One limitation is in regards to the trauma variables used—the Childhood Trauma Questionnaire and the discrimination variables. These two variables are collected from different times in the participants' lives. The Childhood Trauma Questionnaire asks participants to recall experiences from their childhood, while the discrimination variables measure trauma in mid-life. Additionally, it is important to mention that these variables were collected at slightly different time points. While all of the variables were collected during the same wave of the MIDUS II (2004-2006), the discrimination questions were collected from the entire sample during the main MIDUS II survey, while the Childhood Trauma Questionnaire was conducted during the Biomarker sub-portion of the project. Information about when each aspect of the project was conducted is not provided by the MIDUS II researchers.

While the MIDUS II dataset was well suited to answer this study's research questions, there were also a few limitations in using MIDUS II dataset. First, all the variables used in this study are from self-report measures. Self- report measures have a few inherent limitations: Social desirability, or wanting to present oneself in a certain light, has been identified as a limitation of self-report (Sallis & Saelens, 2000). In the case of this study, it could be that participant's under-reported depression or anxiety due to the social stigma that is attached to these mental health problems. Second, the Childhood Trauma Questionnaire is a retrospective measure. A few

limitations of these kinds of measures have been documented. Retrospective data is subject to the capacity of memory; in other words, participants cannot report what they have forgotten (Hardt & Rutter, 2004). This inability to remember could lead to under-reporting of trauma. Relatedly, participants are less likely to report what they were not aware of at the time. If participants did not realize that what they were experiencing was abuse, they may be less likely to report it later on a retrospective measure (Robins et al., 1985). (Hardt & Rutter, 2004). This could be particularly true for those participants that currently have a positive relationship with their family. In the context of this study, the under-reporting of child maltreatment could make it difficult to detect differences between the profiles.

A major limitation of the study is the lack of racial diversity. Although the participants in this study were taken from a nationally representative sample, the racial demographic of the sample used in this study was not nationally representative. The sample contained 90% white participants. This lack of racial diversity makes it difficult to study racial discrimination, which is a major type of discrimination in the United States. With a more racial diverse sample, it is possible that more differences in the sample could have been detected. In future research a more racially diverse sample would be advantageous to studying complex trauma. With this sample it would be inappropriate to generalize too broadly to the general population. It would be important to replicate this study with more racial diversity to see if the results of this study are reproduced.

Conclusion

Even with these limitations, results of this study contribute to the body of literature on complex trauma. Consistent with feminist thought, the study supports conceptualizing discrimination as a form of trauma. This is a new contribution to the complex trauma literature, which previously did not include any analysis of experiencing discrimination in adulthood along

with child abuse in early life. These findings could have important implications in the clinical room. They point to the need to assess discrimination as well as to include the experience of discrimination in treatment planning. For relational health outcomes, fewer differences among the profiles were found; these were surprising results. According to feminist theory, trauma, both in the form of child maltreatment and discrimination, leads to worse relational outcomes. This assertion was only partial supported. Overall, this study adds a consideration of discrimination to our understanding of complex trauma, moving our knowledge of complex trauma forward.

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