AN EXAMINATION OF THE RELATIONSHIP BETWEEN SIBLING AND PEER VICTIMIZATION AND SUBSEQUENT PREDICTION OF PTSD SYMPTOMOLOGY

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CHAPTER I

INTRODUCTION

Peer victimization has been and continues to be a major problem facing schools in the United States and around the world. Only recently has attention fallen specifically on peer victimization in the schools and the problems that are caused by these bullying behaviors (Smith & Myron-Wilson, 1998). Peer victimization involves a series of stressful and potentially traumatic events that can have a pervasive negative psychological impact on the victimized person (Swearer, Grills, Haye & Cary, 2004). In light of this, it is important to not only explore the variables that may be related to peer victimization but also the outcomes experienced by those being victimized.

Research from multiple countries has indicated that peer victimization is a worldwide problem that occurs within the schools. It has been generally suggested by researchers that the behaviors associated with peer victimization peak in middle school and decrease with age (Hoover, Oliver & Hazler, 1992), and that these behaviors tend to be stable over the fifth to sixth grade (i.e. elementary to middle school) transition (Pellegrini & Bartini, 2000b). Nansel, Overpeck, Pilla, Ruan, Simons-Morton & Scheidt (2001) provide data that the percentage of students who report being bullied range from a low of 15 to 20% in some countries to a high of 70% in others. Estimated rates of bullying problems in

England are from 18% to 20% (Boulton & Underwood, 1992), 15% in Norway (Olweus, 1997), and 25% in Australia (Slee, 1994). The National Institute of Child Health and Human Development supported a nationally representative study of American youth ranging from grade six to grade ten in 1998 (Nansel et al). Survey results showed that a total of 29.9% of the sample reported moderate or frequent involvement in peer victimization (Nansel et al.). Overall, peer victimization is a serious problem and it is imperative that research be conducted in order to better understand it and its consequences.

Several authors have noted problems within the extant research in that it focuses primarily on whole-school peer victimization intervention approaches. The existing research on programs meant to alleviate peer victimization in the schools have only found modest success with regard to some of the behaviors that are associated with peer victimization, and these successes have only been found for certain age groups (Rigby, 2004). A synthesis of literature on using whole-school peer victimization prevention programs only showed success in few of the cases suggesting the use of caution when enacting these types of approaches; however, it was also noted that no other forms of intervention programs have proven to be more effective than this approach (Smith, Schneider, Smith & Ananiadou, 2004). However, as discussed in Elinoff, Chafouleas & Sassu (2004), there are secondary and tertiary strategies towards peer victimization that include approaches that have been noted as effective. Therefore, in situations where those victimized children are displaying negative characteristics, and/or are diagnosed with secondary disorders, there may be empirically established treatments that can be utilized in order to intervene appropriately with those children. This highlights the need

for understanding the relationships between victimization, and the outcomes associated with that victimization, so that effective empirically-based interventions can be put in place with those children to ensure optimal success.

Several variables that have been extensively studied in the literature as influencing those behaviors and those who are victimized include school, peer and parent variables. Noticeably absent within the peer victimization literature is that of a relatively new idea, that of sibling victimization. There is extensive literature that brings focus to the importance of sibling relationships as well as to topics such as sibling conflict and sibling aggression; however, there is negligible literature on the existence of sibling victimization and the impact that this victimization could have on those children in relation to their experiences of victimization from their peers. As previously mentioned, the ability to identify outcomes in order for appropriate treatments to be offered to children affected by victimization is essential in providing the most appropriate and effective services to these high-risk children. School psychologists, who often are at the forefront when dealing with children with mental health issues in the schools, must be informed on not only those variables that may have a relationship with peer victimization, but also on the possible outcomes of that victimization so that they can make informed decisions regarding the identification of risk factors as well as the appropriate treatment methodology.

Sibling Relationships

The contributions of the relationships that occur between siblings to individual development and family functioning have been given little attention in previous research and only recently garnered much interest (Dunn, 2005; Kramer & Bank, 2005; Branje, van Lieshout, van Aken & Haselager, 2004). Studying the sibling relationship can provide a critical window towards understanding how children's experiences with siblings impact their well-being and adjustment throughout childhood and onward into adulthood (Kramer & Bank, 2005).

Sibling relationships can be very important when examining the behaviors that these children exhibit and the influence of these behaviors, positive and negative, that may be occurring, both in the home and at school (Abramovitch, Corter, Pepler & Stanhope, 1986). These relationships are also important when looking at children's future positive or negative adjustment outcomes (Stocker, Burwell & Briggs, 2002). Research has indicated that factors such as sibling support, the nature of sibling interactions, and variables such as age spacing, sex, and birth order all hold significance in sibling relationships and the outcomes for those children (Branje et al., 2004; Deater-Deckard, Dunn & Lussier, 2002; Minnett, Vandell, Santrock, 1983).

Further research into sibling relationships, particularly sibling conflict and aggression in negative interactions within those relationships, provides relevant insight. Some identified reasons for sibling conflict include power struggles, property disputes and developmental tasks (Raffaelli, 1992; Felson, 1983); and sharing, physical and verbal aggression, sibling irritating behavior and personality issues (McGuire, Manke, Eftekhari & Dunn, 2000). Sibling conflicts tend to occur due to disagreements on issues between

siblings as opposed to parental issues or parental favoritism (McGuire et al.; Rafaelli). This is further supported by Felson who discussed the idea of sibling rivalry as a possible factor in the advent of sibling conflict. The idea presented is that the older sibling is resentful of the younger because the younger deprives the older of parent attention, which would lead to aggression and conflict between siblings. Felson found little evidence to support this model in his study; rather, siblings tend to get into conflict and use aggression in response to real issues.

Sibling conflict in middle childhood has been shown to function as a predictor of later deviant behavior, delinquency and other problem behaviors later on in adolescence and adulthood (Bank, Paterson & Reid, 1996). Conflict that persists over time, and/or severe hostility that occurs between siblings, may have a harmful impact on children's well-being and psychological health (Stocker et al., 2002). This can include issues relating to both internal and externalizing mental health. Ingoldsby, Shaw & Garcia (2001) found that the experience of sibling conflict tends to increase a child's risk for subsequent conflict situations both with teachers and peers at school. Overall, research has shown the importance of sibling interactions, especially when those interactions are negative.

Sibling Victimization

Sibling victimization as a variable of interest within itself, as well as its relationship with peer victimization at school. Though there has been some exploration into this idea of sibling victimization, there is a paucity of literature on the topic. This is

surprising, as it has been noted that the sibling relationship seems tailor-made for a victimization situation (Martin & Ross, 1995).

The extant literature that addresses sibling victimization indicates that sibling relationships are important and that sibling victimization through bullying behaviors does exist. An explanation regarding the lack of research in this area is that sibling "violence" is seen as normal and common, which causes it to be overlooked as a serious concern (Gelles, 1997). Sibling "violence" may also be overlooked because parents just assume that what their children are doing is "normal sibling rivalry" (Wiehe, 1990).

Bowers, Smith and Binney (1992, 1994) found that bullies reported negative relationships with their siblings, especially with those who they viewed as more powerful than themselves. However, this study was not directly assessing sibling victimization or whether or not sibling victimization is related to peer victimization. Swearer & Cary (2003) performed a longitudinal study on a sample of sixth through eighth graders in several Midwestern schools in which they examined different variables related to bullying and victimization. The authors found that 70% of participants across all three points of the study had never experienced bullying by siblings at home (Swearer & Cary, 2003). However, when specifically examining those students in their sample who were identified as bully-victims (i.e. those students who were displaying characteristics associated with both bullies and victims), 53% of sixth graders, 28% of seventh graders and 50% of 8th graders reported being bullied by their siblings at home. This research provides some insight into the possibility that sibling victimization in the home may possibly be related to peer victimization at school. Importantly, it also suggests that

something within that sibling relationship may be influencing those victimized children to respond to bullying and in essence, display bullying behaviors themselves.

Wolke & Samara (2004) examined the association of sibling victimization with involvement in bullying at school as well as at whether children victimized by siblings at home or involved in bullying at school are at risk for behavior problems. The authors conducted their study using a cross-sectional sample of seventh, eighth and ninth graders in one Arab and one Jewish lower secondary school in Israel (N = 921). The authors found the prevalence rate for sibling victimization to be that 16.5% for both physical and verbal behaviors. They found that children who were victimized by siblings at home were much more likely to be involved in bullying at school than children not victimized by their siblings and that being a victim at home and involvement in bullying at school increased the overall risk for clinically significant behavior problems (Wolke & Samara, 2004). The study did not examine possible outcomes for victims such as internalizing concerns (i.e. anxiety, depression, PTSD).

Duncan (1999a) examined the prevalence of victimization by and of siblings, both involved and not involved in peer victimization, as well as the relationship between self-report psychological symptoms and involvement in peer and sibling victimization (Duncan, 1999a). It was found that 25% of the students reported that they were often victimized by their peers (Duncan, 1999a). The results of this study also indicated that 30% of participants reported frequent victimization by siblings and that 8% reported that they often or very often fear that they may be seriously harmed by a sibling. Other findings indicated that sibling victimization was most prevalent among children who were both bullies and victims at school (Duncan, 1999a).

The extant literature on sibling victimization is relatively brief yet presents enough data to establish that sibling victimization does in fact exist, that it does have a relationship to peer victimization in the schools, and that both have a relationship with subsequent psychological outcomes. The findings in the literature indicate the need for further investigation into sibling victimization, not only in order to establish that it does exist, but also to explore its relationship to peer victimization and to examine both sibling and peer victimization in relation to subsequent psychological health issues, specifically looking at posttraumatic stress disorder symptomology.

Definitions of Victimization

Terminology issues can also be linked back to the diversity of perspectives that have examined these types of behaviors. Overall, the literature uses the terms bullying and victimization interchangeably. It seems that the use of the term bully is most appropriate when focusing on the perpetrators of that behavior; however for this study, where the purpose is focused on victim issues, victimization is the term used to signify a child being victimized by a sibling or peer. The term bully is used when discussing the perpetrators of victimization.

Victimization is often noted as a subcategory or form of aggressive behavior that involves particularly vicious behaviors that are repeatedly directed towards a victim who is unable to effectively defend his or herself (Fekkes, Pijpers & Verloove-Vanhorick, 2005; Olweus, 1993). An additional viewpoint to consider is that victimization itself could be considered more as an overarching category made up of sub-categories of the different forms of aggression (i.e. physical, verbal, relational). It is important to note that

while aggressive acts can occur between people who are of equal power, victimization occurs between two people in which one (i.e. the bully) holds fear and/or power over the victim (Rigby, 2004). Furthermore, an act of aggression can occur in isolation; the idea of victimization is that it is a persistent and common occurrence. The idea of a power differential and the repetitive nature of the exchange between the bully and victim is one the several features that are integral in defining the behaviors that shape victimization and the prevalence of those behaviors.

In defining victimization, there have been several commonly used features that have been noted and utilized in the literature. Olweus provides a definition that has been widely used stating that "a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students" (1993, p. 9). Elinoff et al. (2004) support this need for a more specific definition, stating that "in addition to this definition, that bullying behaviors encompass varying degrees and forms" (p. 888). Elinoff et al. provided the following definition of bullying: Bullying is a form of aggression that is seen as a hostile act (i.e. directed at inflicting pain on others) either in reaction to provocation or proactive (i.e. bullying without cause for some positive outcome). This can take direct and/or indirect forms such as physical aggression, verbal aggression and relational aggression, which can be either performed by an individual or group (Elinoff et al.). This definition includes several features noted by Olweus and encompasses several areas that are essential to defining victimization.

As shown by the recent literature, it is now a widely accepted notion that bullying presents itself in different forms, most commonly as overt (physical, verbal) or indirect

(i.e. relational) bullying. Overt bullying includes "direct aggressive acts such as hitting, kicking, pinching, taking belongings or money, pushing, shoving, or direct verbal abuse (name calling, cruel teasing, taunting, threatening, etc.) (Crick & Grotpeter, 1995; Woods & Wolke, 2004). Indirect or relational bullying is characterized by the hurtful manipulation or damage of peer relationships through social exclusion by the spread of rumors and withdrawal of friendships (Crick & Grotpeter, 1995; Crick & Grotpeter, 1996; Wolke, Woods, Bloomfield & Karstadt, 2000).

Taking from the extant literature on bullying and victimization, the following definition of victimization is used in this study. Sibling victimization and peer victimization are defined using the same descriptions of behavior, the only difference being the identity of the person who is bullying the victim. Victimization is a negative harmful action that is occurring repeatedly over a significant period of time that takes the form of overt (i.e. physical and verbal) or covert (i.e. relational) methods. Victimization is not a singular act and does not occur between people of equal status or power; victimization involves a bully who exhibits some power (either physical or mental) over the victim and the victim is unable to respond to these actions. Victimization includes the victim being fearful and scared of the person performing the negative actions. Subsequent discussion will now shift to the outcomes of sibling and peer victimization, specifically the importance of examining the existence of PTSD within those children who have experienced these types of victimization.

Psychological Outcomes of Victimization

Those who are victimized are susceptible to many negative consequences when they experience persistent negative behaviors (i.e. are bullied) by other children. Kaltiala-Heino, Rimpela, Rantanen & Rimpela (2000) stated that often psychologists are examining how mental health problems fall into two broad categories: externalizing and internalizing. They stated that often those children who are identified as bullies and the outcomes that those children face are often associated with externalizing problems (i.e. conduct problems); on the opposite end, those children who are victimized tend to exhibit the more internalizing problems (i.e. depression, anxiety). Victimization tends to correlate with depression, anxiety and psychosomatic symptoms, and is seen as a result of continuing stress which leads to poor mental health outcomes (Kaltiala-Heino et al., 2000). Other outcomes experienced by victimized children include low levels of popularity, number of friends, happiness and safety at school (Slee & Rigby, 1993), poor self-confidence, psychosomatic issues, low self esteem, anxiety, depression, concentration problems, academic problems, truancy and mood swings (Seals & Young, 2003; Miller, Beane & Kraus, 1998). While the previous outcomes have been relatively well established within the peer victimization literature and to a lesser extent, anxiety and depression within the sibling victimization literature, there is a significant lack of research examining a connection between sibling/peer victimization and PTSD symptomology.

Victimization and PTSD

The extant research on peer victimization and sibling victimization shows clearly that victims are susceptible to both anxiety and depressive symptomology. Paucity

within the literature is found when addressing symptomology of posttraumatic stress disorder as a possible outcome for victims of peer and/or sibling victimization. There is debate over whether victimization at the hands of bullies can be considered Posttraumatic Stress Disorder, which presumes a major catastrophic event (i.e. war) as the trigger for symptomology; however, it has been argued that children can experience symptomology of PTSD, and even meet the criteria for diagnosis as a result of victimization by their peers (Weaver, 2000). According to the American Psychological Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) Posttraumatic Stress Disorder (PTSD) can be diagnosed by the meeting the following criteria: A person exposed to a traumatic event in which the person either experienced, witnessed or was confronted with some event that involved actual or threatened death or serious injury and that the persons response to this event involved intense fear, horror or helplessness (it is important to note that in children this can occur through disorganized or agitated behavior). The traumatic event can be persistently re-experienced by recurrent and intrusive distressing recollections of the event (repetitive play for young children); recurrent dreams of the event (for children these can be frightening without recognizable content); acting as though the event were occurring (i.e. hallucinations or flashbacks) (in children, trauma-specific reenactment can happen); intense distress to cues that resemble the event. There must also be persistent avoidance of stimuli associated with the trauma, duration of the disturbance for longer than one month, and it must cause clinically significant distress and/or impairment in social, occupational or other areas of normal functioning (APA, 2000).

Few studies have addressed PTSD and peer victimization. Storch & Esposito (2003) examined the relationship of different types of peer victimization to posttraumatic stress in victims. Findings from this study indicate that there is a positive relationship between overt and relational victimization and posttraumatic stress. The authors interpret these findings by stating that repeated victimization can result in those children displaying symptoms of posttraumatic stress such as dreams and flashbacks, avoidance and heightened physiological reactivity (Storch & Esposito). The authors go further by proposing that perhaps children victimized by bullies are more susceptible to more severe traumas and exposure to violence and abuse. Mynard, Joseph & Alexander (2000) also presented findings which correlated bullying with posttraumatic stress, finding a positive association between general bullying behaviors and posttraumatic stress symptoms. It is apparent that outcomes experienced by those children being victimized by peers and siblings are significant and must be addressed. As few studies showed a connection between peer victimization and PTSD, further inquiry into this realm is necessary. At this time there is no extant literature examining a possible link between sibling victimization and PTSD symptomology. Therefore, the examination of sibling and peer victimization in relation to subsequent posttraumatic stress symptomology is of vital importance and is a central purpose of this study.

Additional Variables

There are many variables that may have a relationship with sibling and peer victimization. For example, when considering gender, studies have shown that there is no difference between boys and girls when examining incidents of bullying behaviors

(Swearer & Cary, 2003) and that girls tend to be at risk for victimization just as much as boys (Perry, Kusel & Perry, 1988). When examining gender differences among victims of the different forms of bullying, a study of overt victimization concluded that boys and rejected children are more likely to be victims more so than girls and nonrejected children (Boulton & Underwood, 1992; Perry et al., 1988; Olweus, 1978, 1991, 1993). Boys reported significantly more overt victimization than girls, however there was no significant difference between girls and boys on reports of relational victimization (Crick & Grotpeter, 1996). It is vital to examine both genders when studying the different forms of victimization as there may be differences in the frequency and type of bullying behaviors that occur.

Another significant additional variable that warrants examination is that of birth order. Martin & Ross (1995) stated that the relationship between birth order and the sibling relationship is highly important and that older children tend to have more power over their younger siblings and that aggression by older siblings is more potent. This may have implications when examining birth order in the context of sibling victimization as one of the essential points of the definition is that of a power imbalance. The relationship between the variables of gender and birth order with sibling and peer victimization was examined.

Purpose of the Study

A significant amount of research has been conducted related to peer, school and parental variables that may influence peer victimization. However, there is a paucity of literature examining the sibling relationship and what the influence negative sibling

interactions, such as sibling victimization, may have on peer victimization. Furthermore, the idea of sibling victimization itself is a relatively new area of study that requires additional examination into its existence and prevalence. Also, it was previously stated that there is a significant amount of literature linking peer victimization and, to a lesser extent, sibling victimization to internalizing problems such as anxiety and depression; however, very few studies have examined possible posttraumatic stress disorder symptomology within these populations. In fact, there are no known studies that examine the relationship between sibling victimization and PTSD.

In light of findings in the extant literature, there are three main purposes for this study. First, the existence of sibling victimization is explored and prevalence rates of both sibling and peer victimization are presented. Secondly, the relationship between sibling victimization and peer victimization is examined. Finally, a link to PTSD symptomology due to peer/sibling victimization is explored. Additionally, the relationship between gender and the different types of victimization is explored along with the relationship between birth order and sibling victimization.

Overall, this study contributes to the literature by identifying the prevalence of sibling victimization and peer victimization and their relationship with each other. This data will provide other professionals with valuable information that can provide much needed attention to a significant problem in our homes and at our schools. As internalizing concerns are largely underidentified in the schools, exposing the existence of PTSD symptoms as a possible outcome of sibling and peer victimization serves to inform school psychologists and counselors of outcomes the children they are working with may be experiencing. Furthermore, findings related to PTSD symptomology

provide important information that will allow school psychologists and other personnel to be aware of the serious psychological consequences of sibling/peer victimization and provide a renewed effort into identifying victims and providing them with evidence-based interventions. If school psychologists and other school professionals are aware of these phenomena, they may be more likely to identify this outcome in children, which will inform appropriate prevention and intervention strategies in the schools.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Peer Victimization has been and continues to be a major problem facing schools in the United States and around the world. Only recently has attention fallen specifically on peer victimization in the schools and the problems that arise from children being bullied by their peers (Smith & Myron-Wilson, 1998). Peer victimization involves a series of stressful and potentially traumatic events that can have a pervasive negative psychological impact on the victimized person (Swearer et al., 2004). In light of this, it is important to explore the relationships that may influence peer victimization as well as the outcomes experienced by those being victimized.

Peer victimization is a very important concern in the schools, particularly for the victims of those bullies. Victims are an important group of concern because they are susceptible to many negative outcomes, such as psychological trauma and poor school performance. Elinoff et al. (2004) suggest that effective interventions to address victimization in the schools include the use of primary, secondary and tertiary prevention practices. Primary prevention practices include whole-school programs, which have been agreed upon by researchers as the best possible defense against incidences of bullying (Elinoff et al.).

Components of whole school programs that have shown effective results include altering the school environment by improving peer relations; provision of substantial training to teachers and staff to educate them about peer victimization and the interventions themselves, and including components that support parental involvement (Elinoff et al., 2004). Due to the seriousness of bullying behavior and outcomes for the victims of that behavior, it is essential that the factors underlying those behaviors and issues be examined in order to develop effective prevention programming in the schools (Leff, Power, Costigan, & Manz, 2003). The prevalence of victimization in the schools, along with variables that may impact the outcomes of bullying, are important, because this can lead to valuable information that can direct the prevention of and intervention for those who have been victimized.

Other research has noted problems within the literature due to the focus on whole-school bullying intervention approaches. It has been stated that the existing research on programs meant to alleviate peer victimization in the schools indicate they have only found modest success with regard to some of the behaviors that are associated with bullying and that these successes have only been found in certain age groups (Rigby, 2004). A synthesis of literature on using whole-school bullying prevention programs only showed success in few of the cases suggesting the use of caution when enacting these types of approaches, but it was also noted that no other forms of intervention programs have proven to be more effective than this approach (Smith et al., 2004). However, as discussed in Elinoff et al. (2004), there are secondary and tertiary strategies towards bullying that have been noted as effective. For example, providing empirically-based social skills training to victimized students or problem-solving techniques to

aggressive students may be important in reducing bullying behaviors. Tertiary approaches refer to intervening on those students experiencing bullying behaviors who already have established disorders, for which there may be existing empirically-based interventions (Elinoff et al.). This highlights the need for understanding the relationships between victimization and the outcomes associated with that victimization, so that effective, empirically-based interventions can be put in place with those children to ensure optimal success.

It is important to note that victimization is not a biological trait; there are multiple factors that influence whether or not a child participates in the bullying of others or is a victim of that bullying. Several variables that exist in the literature as influencing bullying and victimization include school, peer and family variables. Noticeably absent within the bullying and victimization literature is that of a relatively new area, sibling victimization. There is extensive literature that brings focus to the importance of sibling relationships as well as to topics such as sibling conflict and sibling aggression; however, there is negligible literature on the existence of sibling victimization and the impact that this victimization could have on those children in relationship to their experiences of victimization from their peers. Exploring the topic of sibling victimization and its prevalence, as well as its relationship to peer victimization and important psychological outcomes, specifically Post-traumatic Stress Disorder (PTSD) symptomology, is essential for providing school administrators, parents, teachers and school psychologists with knowledge about the nature of victimization. This information could lead to improvements in the methods used by school districts in providing services to those students who have been victimized at school and/or in the home.

The following sections present findings related to the major variables of interest that were examined in the study. These include sibling victimization, peer victimization and PTSD. Following a review of these areas, a review of the literature regarding some related variables (such as age, gender, birth order and number of siblings, etc.) is provided. Finally, the rationale for the study as well as the research questions and hypotheses is presented.

Major Variables of Interest

Sibling Influence on Peer Victimization

Sibling Relationships

The contributions of the relationships that occur between siblings, and how those relationships affect individual development and family functioning, have been given little attention in previous research (Dunn, 2005; Kramer & Bank, 2005). The first studies in this area were performed in Britain at the turn of the 20th century by Sir Francis Galton, who examined the contributions of older siblings to younger siblings (Brody, 2004). It has only been recently that research into the area of sibling relationships has garnered interest (Branje et al., 2004). Siblings spend great amounts of time together and by middle childhood often are interacting more with each other than even with their parents (McHale & Crouter, 1996). Studying the sibling relationship can provide a critical window towards understanding how children's experiences with siblings impact their well-being and adjustment throughout childhood and onward into adulthood (Kramer & Bank, 2005).

Sibling relationships can be very important when examining the behaviors that children exhibit, both in the home and at school. It is a powerful argument that siblings are developmentally important to each other, due to daily contact between siblings, familiarity, the emotionally uninhibited nature of the relationship and the impact of sharing parents (Dunn, 2005). As stated by Brody (2004), "Parents, clinicians, and now researchers in developmental psychology recognize the significance of the sibling relationship as a contributor to family harmony or discord and to individual children's development" (p. l24). Sibling relationships are extremely important when looking at both negative and positive interactions (Abramovitch et al., 1986). These relationships are also important when looking at children's future positive or negative adjustment outcomes (Stocker et al., 2002). Sibling relationships involve high levels of daily contact and mutual knowledge (Goetting, 1986). Due to this, there is the possibility for not only positive and prosocial sibling interactions, but also for negative and possibly even aggressive actions between siblings. In light of this information, it can be inferred that sibling interactions have a significant effect on both positive and negative outcomes for siblings. A brief discussion of prosocial outcomes for siblings will be presented, followed by a more in-depth discussion of negative sibling relationships and their consequences.

Previous research has demonstrated a link between sibling influence on each other and the development of prosocial behavior (Garcia, Shaw, Winslow &Yaggi, 2000). It is important to note that sibling conflict is not necessarily a negative interaction. As stated by Raffaelli (1992), "Siblings' ability to disagree openly thus creates a context where individual boundaries are clarified and differences articulated" (p. 661). However,

sibling conflict can have an impact on siblings' future prosocial development and behavior.

Another important positive interaction between siblings that serves to enhance sibling development and behavior is that of support. Branje et al. (2004) studied perceived levels of sibling support in adolescents aged eleven to thirteen and found that perceived support between siblings tends to be negatively related to externalizing problem behaviors and that sibling problem behavior is also strongly related to internalizing problems. Deater-Deckard et al. (2002) examined younger children (preschool age and early school age) and similarly found that negative interactions between siblings are related to current and future externalizing problems. Previous researchers have found that variables such as gender, age spacing and birth order hold significant influence over sibling relationships (Minnett et al., 1983). Sibling development and trajectories may be due to modeling behavior between siblings that could be related to gender or birth order (Branje et al.).

To extend the discussion of sibling relationships, sibling conflict must be examined. Conflict can be defined as opposition between two individuals that happens when a person does something that another person does not appreciate (Hay, 1984 cited in Raffaelli, 1992). Sibling conflict is often considered to be a common feature of the sibling relationship and is sometimes characterized by anger or aggression. It has been noted that there is variability in sibling pairs or dyads when looking at their reports of their perceived relationship with their sibling as well as with their perceived reasons for conflict with their siblings (McGuire et al. 2000; Graham-Bermann, 2001). Some identified reasons for sibling conflict include power struggles, property disputes and

developmental tasks (Raffaelli; Felson, 1983); sharing, physical and verbal aggression, sibling irritating behavior and personality issues (McGuire et al.). Sibling conflicts tend to occur due to disagreements on issues between siblings as opposed to parental issues or parental favoritism (McGuire et al.; Rafaelli). This is further supported by Felson (1983) who discussed the idea of sibling rivalry as a possible factor in the advent of sibling conflict. The idea presented is that the older sibling is resentful of the younger because the younger deprives the older of parent attention, which would lead to aggression and conflict between siblings. Felson found little evidence to support this model in his study but found siblings tend to get into conflict and use aggression in response to real issues.

Sibling conflict in middle childhood has been shown to function as a predictor of later deviant behavior, delinquency and other problem behaviors later on in adolescence and adulthood (Bank et al., 1996). Conflict that persists over time and/or severe hostility that occurs between siblings may have a harmful impact on a child's well-being and psychological health (Stocker et al., 2002). This can include issues relating to both internalizing and externalizing mental health issues. Through a longitudinal study, Stocker et al. found that sibling conflict at the first data collection time accounted for a unique share of variance at the second data collection phase two years later. At the second time, those children who had been experiencing conflict at time one were displaying increased anxiety, depressed mood and delinquent behavior (Stocker et al.). Sibling conflict is also likely to result in increased problems within other settings, such as at school. Ingoldsby et al. (2001) found that the experience of sibling conflict tends to increase a child's risk for subsequent conflict situations both with teachers and peers at school.

Lamarche, Brendgen, Boivin, Vitaro, Perusse & Dionne (2006), through the examination of twins, looked at the influence of friendships and sibling prosocial relationships as protectors from peer victimization or as predictors of peer victimization. They looked at these relationship factors as mediators of the relationship between the children's reaction to peer victimization and to whether or not the child used proactive or reactive aggression in reaction to victimization when it was present. They found that the target child's use of reactive aggression significantly predicted victimization for that child when that child's relationship with his/her sibling was moderate; when the child was experiencing decreased prosocial interaction from his/her sibling, the relationship between that child's reactive aggression and victimization was stronger (Lamarche et al., 2006). The results of this study indicated that reactive aggression uniquely predicted a child's risk of peer victimization and that sibling characteristics (such as prosocial behavior) may provide protection against the risk of victimization as is the case within friendships with peers (Lamarche et al.). The exploration of reactive aggression as a predictor for increased risk of peer victimization is examined later within the review of literature. What the results of this study again highlight is that sibling relationships can be important both as negative and positive indicators of behavior for the children experiencing those relationships.

Through the review of the literature that has examined sibling relationships, it is clear that sibling relationships are incredibly important when examining child development regarding prosocial behavior and to a great extent, to negative behavior and outcomes. The following sections will present the first main variable of the study: sibling victimization.

Sibling Victimization

A topic that has recently received attention in the literature is that of the possibility that siblings could be involved in bullying behaviors in the home. Sibling victimization as a variable of interest in predicting possible peer victimization at school for those children is an important topic to consider. Though there has been some exploration into this idea of sibling victimization, there is a paucity of literature on the topic. This is surprising, as it has been noted that the sibling relationship seems tailor-made for a victimization situation (Martin & Ross, 1995). It is unfortunate that this idea of sibling victimization has been largely overlooked. As stated previously, the importance of the sibling relationship provides a basis for the examination of sibling victimization, its prevalence and its influence over peer victimization as well as the outcomes that these victimized children are experiencing. This is especially poignant when exploring possible PTSD symptomology as an outcome of sibling and peer victimization. The following presents current research findings related to sibling victimization.

The literature that exists under the topic of sibling victimization indicates that sibling relationships are important and that sibling victimization through bullying behaviors does exist. Definitions of these behaviors will be addressed shortly. It seems that the area of sibling victimization may have been overlooked in the past because of the way that sibling interactions (such as aggression) are viewed by parents and other professionals working with children. Gelles (1997) noted that this may be due to the fact that sibling "violence" is seen as normal and common, which causes it to be overlooked

as a serious concern. Sibling "violence" may also be overlooked because parents just assume that what their children are doing is "normal sibling rivalry" (Wiehe, 1990). Due to these types of rationalizations, sibling victimization has been a largely under-studied area in the literature.

Research performed by Bowers et al. (1992, 1994) provided some data regarding the relationship between bullies, victims and siblings. They found that bullies reported negative relationships with their siblings, especially with those who they viewed as more powerful than themselves. However, this study was not directly assessing sibling victimization or whether or not sibling victimization is predictive of peer victimization. Swearer & Cary (2003) performed a longitudinal study on a sample of sixth through eighth graders in several Midwestern schools in which they examined different variables related to bullying and victimization. The authors found that 70% of participants across all three points of the study had never experienced bullying by siblings at home (Swearer & Cary). However, when specifically examining those students in their sample who were identified as bully-victims (i.e. those students who were displaying characteristics associated with both bullies and victims), 53% of sixth graders, 28% of seventh graders and 50% of 8th graders reported being bullied by their siblings at home. This research provides some insight into the possibility that sibling victimization in the home may be a risk factor or predictor of peer victimization at school. Importantly, it also suggests that something within that sibling relationship may be influencing those victimized children to respond to bullying and in essence, display bullying behaviors themselves. Characteristics of victims and their various reactions or the reasons behind their

victimization will be discussed later on when examining the various definitions and historical context of victimization.

Wolke & Samara (2004) examined the association of sibling victimization with involvement in bullying at school, as well as at whether children victimized by siblings at home or involved in bullying at school are at risk for behavior problems. The authors conducted their study using a cross-sectional sample of seventh, eighth and ninth graders in one Arab and one Jewish lower secondary school in Israel (N = 921). Measures used included a scale that the authors developed in order to examine sibling victimization and bullying behaviors by peers. The measure addressed physical, verbal and relational victimization when inquiring about peer victimization but only assessed physical and verbal when looking at sibling victimization. There was also no reference to an imbalance of power or assessment of this criteria, which in the next section will be presented as included into the definition of victimization. They used the Strengths and Difficulties Questionnaire in order to address behavior problems. The authors found the prevalence rate for sibling victimization to be 16.5% for both physical and verbal behaviors. They found that children who were victimized by siblings at home were much more likely to be involved in bullying at school than children not victimized by their siblings and that being a victim at home and involvement in bullying at school increased the overall risk for clinically significant behavior problems (Wolke & Samara). The study did not examine possible outcomes for victims such as internalizing concerns (i.e. anxiety, depression, PTSD). The following study presented is the only study designed to specifically address sibling victimization in the United States.

Duncan (1999a) examined the prevalence of victimization by and of siblings among those involved and not involved in peer bullying, as well as the relationship between self-report psychological symptoms and involvement in peer and sibling victimization (Duncan, 1999a). Participants included 375 seventh and eighth grade students from three middle schools within the mid-south region of the United States. Self-report methodology was utilized by the author to collect data for this study. Measures included the Peer Relations Questionnaire (PRQ), which had been utilized in several Australian studies of victimization, the Multiscore Depression Inventory for Children (MDIC) and the Child Loneliness Questionnaire (CLQ). The study utilized frequency and chi-square statistics for examining the prevalence of and relationship between sibling and peer victimization; multivariate analysis of variance was used to examine the psychological correlates of sibling and peer victimization. It was found that 25% of the students reported that they were often victimized by their peers (Duncan, 1999a). Results also indicated that 30% of participants reported frequent victimization by siblings and 8% reported that they often or very often fear that they may be seriously harmed by a sibling. However, the authors noted that the item meant to capture the fear of siblings was not included in their definition. Through the examination of the other items it seems that victimization was measured without assessing whether or not there was a perceived power differential for the sibling victims. Also, while the sibling items included measures of physical and verbal aggression, they did not measure relational aggression. One final note on the measures used for this study is that the items added onto the PRQ to assess sibling victimization were not worded consistently with the peer questions. In terms of psychological outcomes in this study, it was found that children

being victimized by their siblings received significantly higher scores on the MDIC and CLQ than those not involved in sibling victimization (Duncan, 1999a). Other findings indicated that sibling victimization was most prevalent among children who were both bullies and victims at school (Duncan, 1999a).

The extant literature on sibling victimization is relatively brief yet presents enough data to establish that sibling victimization does in fact exist, that it does have a relationship to peer victimization in the schools and that both have a relationship with subsequent psychological outcomes. The findings in the literature indicate the need for further investigation into sibling victimization, which aligns with one of the major goals of this study, which is to examine the prevalence of sibling victimization, its relationship to peer victimization and subsequent psychological health issues, specifically PTSD symptomology. The following sections provide a review of the peer victimization literature.

History of Bullying

Juvonen & Graham (2001) stated that Dan Olweus was the first known researcher to systematically examine peer victimization and that it is nearly impossible to find a published study on the topic that does not include a mention of his pioneering work into the area. Dan Olweus conducted studies which identified "mobbing" in Sweden during the late 1960's and 1970's. These mobbing studies were conducted in order to examine "bully" and "whipping" boy problems in the schools in a sample of 12 to 16 year old boys (Olweus, 1978). This was the first known attempt to systematically gain knowledge about these types of concerns and further attempts to address this area occurred within

Scandinavia until the 1980's when bullying received public attention in countries like Japan, England and the United States (Olweus, 1991). Olweus borrowed the term mobbing from the Austrian ethnologist, Konrad Lorenz, who used the term in order to describe a collective attack by a group of animals on an animal of a different species; this animal is often noted as larger and an enemy of the group (Olweus, 1978). Olweus became familiarized with the term mobbing through the physician Peter-Paul Heinemann who say "mobbing" as various forms of group violence that were directed against individuals that did not fit in, in other words, those who were deviant from the members of the group (Olweus, 1978). It is important to note that prior to addressing the definitions in the literature, a brief mention of terminology must be noted. Olweus (1978; 1991) addressed this issue initially due to the idea of mobbing as a group issue, so he used the term bullying to describe similar actions performed by individuals as opposed to groups. Terminology issues can also be linked back to the diversity of perspectives that have examined these types of behaviors. Overall, the literature uses the terms bullying and victimization interchangeably. It seems that the use of the term bully may be most appropriate when focusing the perpetrators of that behavior; however for this study, the purpose is focused on victim issues and thus, victimization will be the term used to signify a child being victimized by a sibling or peer. The term bully will be used when discussing the perpetrators of victimization.

Victimization is often noted as a subcategory or form of aggressive behavior that involves particularly vicious behaviors that are repeatedly directed towards a victim that is unable to effectively defend his or herself (Fekkes et al., 2005; Olweus, 1993). Other aspects of aggressive behaviors, such as the distinction between proactive and

instrumental aggression, have also been used in providing description of victimization. Instrumental aggression refers to behavior directed at the victim which is designed to obtain a desired outcome, like gaining property, power or affiliation; whereas reactive aggression is the result of an aversive event performed by the victim that elicited anger or frustration on the part of their perpetrator (Espelage & Swearer, 2003). These authors stated that the majority of victimization is generally proactive or instrumental (Espelage & Swearer). This is consistent with the distinction that victimization includes a power differential.

An additional viewpoint to consider is that victimization itself could be considered a broad term that is made up of sub-categories of the different forms of aggression (i.e. physical, verbal, relational). This will be addressed further when the definition of the various forms of victimization for the proposed study are presented. Prior to presenting the definitions of victimization that have been found in the literature, it is important to note the distinction between conflict, aggressive acts and victimization. Aggressive acts can occur between people who are of equal power; victimization occurs between two people in which one (i.e. the bully) holds fear and/or power over the victim (Rigby, 2004). The idea of a power differential between the bully and victim is one of several features that in integral in defining the behaviors that shape victimization and the prevalence of those behaviors.

In defining victimization, there have been several commonly used features that have been noted and utilized in the literature. Olweus provides a definition that has been widely used, stating that "a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other

students" (1993, p. 9). However, this definition is general, and it does not specify what negative actions indicate bullying behavior. Olweus (2001) noted that since that first basic definition, he has expanded his definition to include those more specific examples of the different subtypes of victimization, such as physical, verbal and relational methods. The new definition also includes statements indicating that these acts are occurring repeatedly over time, notes that the victim finds it difficult to defend him or herself, and includes a statement that it is not considered bullying when the teasing is friendly or playful and when two students of the same level of power argue or fight (i.e. addressing the power differential) (Olweus, 2001). Elinoff et al., (2004) support this need for a more specific definition, stating that "in addition to this definition, that bullying behaviors encompass varying degrees and forms" (p. 888). Elinoff et al. provided the following definition of bullying: Bullying is a form of aggression that is seen as a hostile act (i.e. directed at inflicting pain on others) either in reaction to provocation or proactive (i.e. bullying without cause for some positive outcome). This can take direct and/or indirect forms such as physical aggression, verbal aggression and relational aggression, which can be either performed by an individual or group (Elinoff et al.). This definition includes several features noted by Olweus and encompasses several areas that are essential to defining victimization.

The following definition of bullying includes a more comprehensive description of what behaviors are indicative of bullying. Bullying can be defined as "someone who directs physical, verbal or psychological aggression or harassment toward others, with the goal of gaining power over or dominating another individual" (Cohn & Canter, 2003, p. 1). According to Cohn & Canter a victim can be defined as "someone who repeatedly is

exposed to aggression from peers in the form of physical attacks, verbal assaults, or psychological abuse" (p. 1).

As shown by the recent literature, it is now a widely accepted notion that bullying presents itself in different forms, most commonly as overt (physical, verbal) or indirect (i.e. relational) bullying. The following definitions will be used in the proposed study to distinguish between overt and relational victimization. Overt bullying includes "direct aggressive acts such as hitting, kicking, pinching, taking belongings or money, pushing, shoving, or direct verbal abuse (name calling, cruel teasing, taunting, threatening, etc.)"(Crick & Grotpeter, 1995; Woods & Wolke, 2004, p. 2). Indirect or relational bullying is characterized by the hurtful manipulation or damage of peer relationships through social exclusion by the spread of rumors and withdrawal of friendships (Crick & Grotpeter, 1995; Crick & Grotpeter, 1996; Wolke et al., 2000). It has also been stated in the literature that within the subset of relational aggression, both direct and indirect behaviors can be present (Young, Boye & Nelson, 2006).

Often the images that are brought up when thinking about the aggressive acts perpetrated by bullies include physical actions such as fights, and are often associated with boys as opposed to girls. However, it is important to recognize the existence of two distinct types of bullying by which children are often victimized. Only recently has the literature addressed the existence of multiple types of aggression and victimization that occur among children. Research performed by Crick & Grotpeter (1996) presented findings that not only supported the importance of overt victimization, but noted that focusing solely on overt victimization does not capture the full range of negative and harmful events that children may experience from their peers. Prior to the inclusion of

relational victimization, peer victimization research focused primarily on overt forms of aggression; while this is obviously an important area of study, research failed to address the possible range of behaviors that children could be directing towards their peers (Crick & Grotpeter, 1996).

The majority of victimized children (64%) in a study performed by Crick & Grotpeter (1996) experienced relational or overt aggression, not both at the same time; these data provide additional evidence that previous literature has neglected the study of relational forms of victimization which may have prevented the identification of a substantial percentage of children who are being victimized by their peers. These results show that future research on victimization must take into account the two distinct forms of bullying so that those children being victimized in multiple different ways can be identified and intervened upon with the most effective methods.

Recent literature has alluded that bullying and victimization may very well rest along a continuum regarding the severity of outcomes associated with those bullies and victims. This continuum consists of bullies, victims and those that are both bullies and victims. Those children who are members of the bully-victim group tend to have more severe negative social and psychological difficulties than those who are only bullies or only victims (Swearer & Cary, 2003). Olweus (1978) also made a distinction regarding "passive victims" and "provocative victims". Passives victims are those that tend to be insecure and anxious; these victims do not invite attacks onto themselves, instead they are targets. In contrast, provocative victims are those that react when they are the object of victimization. These victims are hot-tempered, irate and tend to tease and fight back against the bully. It appears that through these categorizations the continuum could be

further clarified as bully then passive victim and then the provocative victim, or the bully-victim as discussed previously. The conceptualization of peer victimization, as demonstrated by the extant literature, is complex. For the purposes of this study, the researcher will be focusing on those who are being victimized by their peers or siblings.

Prior to moving onto the next section, it may be important to note that the definitions used in the literature to define victimization as inflicted by bullies is not entirely dissimilar to the other more severe forms of victimization (i.e. abuse), including the imbalance of power, differing emotional tones, blaming the victim, lack of concern for the feelings of the victim, lack of compassion and remorse (Miller et al., 1998). These authors define "bully victimization" similarly to Olweus and other definitions presented, such as deliberate aggression, an imbalance of power and the aggression results in physical and/or psychological pain and distress and repeated episodes of this aggression (Miller et al.).

Overall, it seems that the extant literature on victimization is generally in agreement over several of the aspects of the definition, especially with regard to its distinction from general aggression and conflict: that victimization includes acts repeated over time and that there is an imbalance of power between those who are the bullies and those who are the victims. The definition of sibling and peer victimization utilized in this study is presented following the discussion of the prevalence of peer victimization.

Prevalence

Research from multiple countries has indicated that bullying is a worldwide problem that occurs within the schools. It has been generally suggested by researchers

that bullying behaviors peak in middle school and decrease with age (Hoover et al., 1992) and that these behaviors tend to be stable over the fifth to sixth grade (i.e. elementary to middle school) transition (Pellegrini & Bartini, 2000b). The majority of the research on bullying and the prevalence of bullying was performed in Europe and Australia (Nansel et al., 2001). Prevalence rates of bullying vary and encompass a wide range depending on the country. Nansel et al. provide data that the percentage of students who report being bullied range from a low of 15 to 20% in some countries to a high of 70% in others. Estimated rates of bullying problems in England are from 18% to 20% (Boulton & Underwood, 1992), 15% in Norway (Olweus, 1997) 25% in Australia (Slee, 1994). The National Institute of Child Health and Human Development supported a nationally representative study of American youth ranging from grade six to grade ten in 1998 (Nansel et al.). Survey results showed that a total of 29.9% of the sample reported moderate or frequent involvement in bullying (Nansel et al.). The rates vary according to the populations used, geographical location, the ages of children sampled, the method of collecting data and the operationalization of the term bullying (Rigby, 2000). These prevalence data are important because they establish bullying as a serious problem in schools not only in the United States, but around the world, and provide a rationale for the further examination of the variables that may be impacting these numbers.

Definition of Victimization

When undertaking the challenge of defining major variables of interest, it has been stated that “efforts to assess and treat the impact of peer victimization as one of the

spectrum forms of child abuse is clinically important to our understanding of the impact of stressful life events on the physical and psychological health of children" (Miller et al., 1998, p. 31). Defining sibling/peer victimization appropriately and using appropriate measures to assess this victimization is essential for producing significant findings for these variables, as well as their relationship to PTSD symptomology for these children.

In defining bullies and victims, several features have been noted in the literature. Prior to presenting the definitions of bullying, it is important to note the distinction between aggressive acts and bullying. Aggressive acts can occur between people who are of equal power; bullying occurs between two people in which one (i.e. the bully) holds fear and/or power over the victim (Rigby, 2004). Olweus (1993) provided a definition of peer victimization that provided for a general description of the behaviors. Elinoff et al., (2004) support this need for a more specific definition, stating that "in addition to this definition, that bullying behaviors encompass varying degrees and forms" (p. 888).

Recent literature has alluded that bullying and victimization may very well rest along a continuum regarding the severity of outcomes associated with those bullies and victims. This continuum consists of bullies, victims and those that are both bullies and victims. Those children who are members of the bully-victim group tend to have more severe negative social and psychological than those who are only bullies or only victims (Swearer & Cary, 2003). Olweus (1978) also made a distinction regarding "passive victims" and "provocative victims". Passive victims are those that tend to be insecure and anxious; these victims do not invite attacks onto themselves, instead they are targets. In contrast, provocative victims are those that react when they are the object of victimization. These victims are hot-tempered, irate and tend to tease and fight back

against the bullying. It appears that through these categorizations the continuum could be further clarified as bully then passive victim and then the provocative victim, or the bully-victim as discussed previously. For the purposes of this study, in which the intent is to explore sibling and peer victimization and outcomes in reference to those that have been victims, and the outcomes those victims experience. The idea of both passive and provocative victims, while important, is not vital to the purpose of this study, as the researcher is most interested in examining these variables at a broader level.

As stated when previously discussing definitions of victimization, it should be noted that victimization is often seen as a subcategory or specific form of aggression; however, it may be more pertinent to describe victimization as being made up of aggressive actions towards a less powerful person over a significant amount of time. Smith (2004) suggests that most definitions of victimization are fuzzy and that these blurred areas must be taken into account, such as the intention of the behaviors (i.e. instrumental vs. reactive), the different sub-groupings of behaviors (overt vs. covert; physical, verbal, relational), and whether or not the imbalance of power can be inferred from the subjective perception of the victimized person or if it should also some form of objective criteria, such as strength or number. This author went on to state that these definitional inconsistencies should be considerations, but they should not go so far as to prevent and in the past have not prevented research from occurring in this area (Smith, 2004).

Taking from the extant literature on bullying and victimization, the following definition of victimization is utilized for this study. Sibling victimization and peer victimization will be defined using the same descriptions of behavior, the only difference

being the identity of the person who is bullying the victim (i.e. sibling or peer). Victimization is a negative harmful action that is occurring repeatedly over a significant period of time that takes the form of overt (i.e. direct) or covert (i.e. indirect) methods. Victimization is not a singular act and does not occur between people of equal status or power; victimization involves a bully who exhibits some power (either physical or mental) over the victim and the victim is unable to respond to these actions. Victimization includes the victim being fearful and scared of the person performing the negative actions. Overt methods include physical and/or verbal aggression. Covert methods include relational aggression and sometimes verbal aggression. However, for the purposes of the proposed study, physical and verbal aggression will be considered as direct; relational aggression will be considered as indirect. Physical aggression will be defined as hitting, kicking, biting; any form of behavior which results in physical harm for the person being victimized. Verbal aggression includes verbal threats, teasing, name-calling and other like behaviors in which the bully is directly providing these threats to the victim. Relational aggression takes place covertly and includes damaging behaviors perpetrated in order to cause the victim to lose friendships and to spread rumors about the victim. In order to effectively measure the proposed definitions, the following section provides an overview of trends in the assessment of victimization.

Assessment of Victimization

Victimization has been assessed using multiple methods in many different studies, including both structured and unstructured observations, interviews, normative and ipsative measures. Observational assessment and interview methods employ more

subjective measurement, whereas normative measures provide information regarding group perceptions of individuals and their behavior; ipsative assessment provides information about individual perceptions of their experiences (Pellegrini, 2001). The following presents a brief discussion of the different types of assessment and the method utilized in this study.

Observational Assessment and Interviews

Unstructured and structured observations are viewed as useful in gathering information when studying incidences of victimization. It has been stated that observational assessment for the purposes of studying victimization can be useful in providing objective information and it has the potential to provide in-depth information regarding the participants in, settings of, forms and frequency of victimization (Crothers & Levinson, 2004). However, the weaknesses of observational data when examining victimization outweigh the strengths, due to the nature of the victimization itself.

Pellegrini & Bartini (2000) found that diaries kept by participants were systematic correlates of self-report and peer nomination, but not adult measures, suggesting that peer aggression and victimization are phenomena that are not readily available to teachers and staff (outsiders) and are available to the students themselves. Most aggression/victimization occurred when adults were not present; however, other students would witness these acts. Leff et al. (2003) suggest that while recess is a building block of social competence, it as well as the lunchroom can be a breeding ground for victimization.

The use of interviews when exploring victimization is another method of assessment that has been utilized in past research. Interviews can be useful in providing the researcher with information that may not be able to be assessed by the use of other measures because it provides the child with the opportunity to present their perspectives on what they have been experiencing in a more informal manner. Limitations of interview methodology, according to Crothers & Levinson (2004), include the considerable time investment that it takes to complete the interview with an adequately sized sample of participants, and the differences in responses that could be elicited by different interviewers (i.e. inter-rater reliability concerns).

In sum, both interviews and observations can carry bias due to their subjective nature and because of possible preconceptions held by the researchers prior to data collection. Also, observational methods are particularly troublesome in assessing the frequency of victimization effectively, due to the covert nature of victimization and the inability to observe all possible settings where it may be occurring. In light of these issues, neither observational methodology nor interviews were used to collect data for this study.

Normative Assessment

Peer nomination is another method of assessment that has been used previously in the victimization literature. Peer nominations allow for students to identify aspects of behavior for other students within their class or school, meaning that a child would provide information including their thoughts about students who are being victimized and identifying these persons. Peer nomination measures allow for providing access to

information that typically is hidden from adults (Pellegrini, 2001). Often, peer nominations involve providing students with pictures and asking them specific questions regarding their peers and instructing those students to nominate their peers based on certain criteria. The peer nominations can also occur through the use of descriptive statements provided to the students; then the students are asked to rate their peers along those statements (Pellegrini, 2001). Peer nomination procedures and peer assessment measures/descriptors would best serve a case when a school is planning implementation for whole-class interventions (Crothers & Levinson, 2004). A difficultly in choosing this method for the proposed study includes the problem of confidentiality. By using peer nomination, the purpose is to identify certain students in the class; results would not be anonymous. Peer nomination methods would be a preferred method if the purpose of this study was to identify individuals that are being victimized and intervening with those students. However, this is not the nature, nor the intent of this study. Additionally, this could create problems regarding institutional review board approval, and therefore was not chosen as the method of victimization assessment in this study.

Ipsative Assessment

Ipsative assessment refers to the use of self-report methodology in order to identify the individual student's perceptions of their experience of victimization (Pellegrini, 2001). It is noted that instances of victimization tend to be underreported when the identity of the respondent is known, so the use of confidential procedures may insure more accurate accounts of the student's experiences (Pellegrini). When using self-report methodology, it is essential to have psychometrically sound instruments so that the

researcher can be confident that the information being attained is consistent with the definitions of victimization that are in place. Self-reports are also useful in the sense that they can elicit information regarding behaviors that have occurred in settings that the researcher would be unable to observe due to the covert nature of victimization, as discussed previously (Pellegrini). Pellegrini and Bartini (2000a) found that diaries kept by individual students regarding their experiences of victimization correlated significantly with the utilized self-report measure; the observations by researchers did not correlate with those measures. This indicates that the use of self-report measures when studying the incidences of victimization may be the most efficient way of attaining reliable data regarding student involvement in victimization. Brief administration, few administrators and a relatively low cost are all further benefits of the use of self-report measures (Crothers & Levinson, 2004). Another benefit of using self-report methodology when examining victimization is that it provides information that is particularly important in identifying internalizing disorders associated with victimization (Pellegrini). Due to the nature of this study, which included the assessment of internalized states (i.e. PTSD symptomology), the use of self-report methods to assess of victimization provides consistency in measurement across variables in this study.

Several self-report measures have been used in previous research to assess peer victimization. The Olweus Bully/Victim Questionnaire (OBVQ) (Olweus, 1983) was designed in order to assess bully/victim problems in schools (Crothers & Levinson, 2004). The OBVQ begins with a definition of bullying and further inquiries into the frequency of bullying, types of bullying, the location of the bullying, who does the bullying, how often children report bullying and what teachers do to stop bullying

(Crothers & Levinson, 2004). The OBVQ is probably the most commonly used self-report measure in studies of victimization and has shown strong psychometric properties. The OBVS is good in that it provides measure of the different types of victimization (i.e. direct vs. indirect; physical, verbal and relational) and the definition presented prior to administration addresses the power differential and repetitiveness of the victimization; however, it has never been used within the context of sibling victimization.

The Reynolds Bully Victimization Scale (BVS) is a measure designed to assess bullying behaviors for both bullies and victims (Reynolds, 2003). The victimization scale consists of 23 items with ratings from never to five or more times and has been shown to have good psychometric properties. The Reynolds BVS scale can be used by schools to assess for bully and bully-victim identification at the whole school and individual student level. Due to the high cost of this measure and issues of using it to measure sibling victimization, it was not chosen as the measurement tool for this particular study.

The Bully Survey was developed by Susan Swearer and is a three part survey that assesses student experiences with bullying, their perceptions of bullying and attitudes toward bullying (Swearer & Cary, 2003). The Bully Survey is designed as a way of identifying a wide range of information linked to bullying behaviors occurring in the schools, and is modeled to be used as a data based decision-making tool in the schools (www.targetbully.com). Due to the nature of this instrument, it would not lend itself to the measurement of sibling victimization, nor is it designed to specifically look at different forms of peer victimization. For these reasons, this measure was not chosen to be utilized for the purposes of this study.

The California Bully Victimization Scale was developed by Michael Furlong and colleagues to accurately assess bullying behaviors to inform intervention in the schools and includes items addressing the observation of victimization that is occurring, where it occurs, when it occurs, who the student tells, and attributes of the bully (http://education.ucsb.edu/csbyd, 2009). While this measure seems to address many of the pitfalls of accurately assessing bullying, including the important definition components of the frequency and power differential, its web-based format and school focus keep it from readily adapting itself to measure sibling victimization and therefore, it was not chosen as the measure for this study. However, the CBVS does appear to be a good comprehensive measure of peer victimization in the schools and should be considered by school districts to assess different aspects of bullying behaviors in their schools in order to drive prevention and intervention planning.

The Peer Relations Questionnaire (PRQ) was developed by Rigby and Slee and is a twenty item measure meant to identify students with the tendency to bully others, the tendency to be victimized and also the tendency to display prosocial behavior (Crothers & Levinson, 2004). The PRQ was utilized in Duncan (1999a) in the examination of sibling and peer victimization. However, the items within the PRQ do not lend themselves well to the identification of sibling victimization, as the author had to add additional items that were not in direct comparison with the peer victimization items.

The Social Experiences Questionnaire-Self Report (SEQ-SR; Crick & Grotpeter, 1996) has been utilized as a measure of relational and overt victimization. The SEQ-SR consists of three scales with five items each which are assessed through likert items. The first scale is Relational Aggression, which assesses how often peers my attempt to harm

or threaten relationships. The second scale measures overt aggression, which includes items related to physical victimization. The third scale measures prosocial attention from peers. The SEQ-SR does not include a scale measuring verbal aggression. The SEQ-SR has been show particularly useful in distinguishing between overt and relational aggression (Crothers & Levinson, 2004). The SEQ-SR has also been shown to yield moderate to high reliability levels (Crothers & Levinson). Due to the SEQ-SR's demonstrated reliability and the brevity of items, as well as the fact that it measures both relational and overt forms of aggression, it is a useful tool when assessing for peer victimization and will lend itself readily to the assessment of sibling victimization. Further, the SEQ-SR has been utilized by researchers (Storch & Esposito, 2003) to examine peer victimization and PTSD symptomology, a major purpose of this study.

To conclude this section, report methods are preferred when the researcher's purpose is to get attitudinal and behavioral data from students and teachers (Espelage & Swearer, 2003). The SEQ-SR provides the type of behavioral data sought by the researcher. After examining the different methodologies of assessment used in the extant literature on victimization, it is apparent that one of the previously mentioned methods will best provide data for this study. Due to the nature of this study, which is the examination of the relationship between sibling victimization and peer victimization and subsequent PTSD symptomology, self-report measures were utilized. In order to accurately address the definition of sibling and peer victimization, this study utilized the SEQ-SR with modifications so that sibling victimization and verbal aggression could be addressed. Furthermore, modifications were made to the administration to include detailed definitions of peer and sibling victimization, so that the power differential was

made clear. This concludes discussion on peer and sibling victimization as major variables of interest. The following sections provide discussion of the outcomes associated with victimization and provide rationale for examining PTSD within these populations.

Outcome Variables

Victimization has a significant impact on the children who are the targets of those behaviors. Those who are victimized are susceptible to many negative consequences when they experience persistent negative behaviors (i.e. are bullied) by other children. Kaltiala-Heino et al., (2000) stated that often psychologists are examining how mental health problems fall into two broad categories: externalizing and internalizing. They stated that often those children who are identified as bullies and the outcomes that those children face are often associated with externalizing problems (i.e. conduct problems); on the opposite end, those children who are victimized tend to exhibit the more internalizing problems (i.e. depression, anxiety). Victimization tends to correlate with depression, anxiety and psychosomatic symptoms, is seen as a result of continuing stress which leads to poor mental health outcomes (Kaltiala-Heino et al.).

The classic Olweus "Whipping boy" study (1978; 1991; 2001) found that victims (whipping boys) were anxious at home and at school, had low self-esteem, were physically weak, socially isolated and were afraid to be assertive or aggressive. Mynard et al. (2000) stated that "children involved in school bullying appear to be at risk on a number of psychological health variables" (p. 816). It is vital to understand the consequences that come from bullying, which include physical, psychological, and

psychosocial outcomes. Other outcomes experienced by victimized children include low levels of popularity, number of friends, happiness and safety at school (Slee & Rigby, 1993), poor self-confidence, psychosomatic issues, low self esteem, anxiety, depression, concentration problems, academic problems, truancy and mood swings (Seals & Young, 2003; Miller et al., 1998).

Rigby (2003) reported that after studying research that investigated the consequences of bully-victim problems, four categories of negative health conditions are able to be identified. The first category is low psychological well-being. "This includes states of mind that are generally considered unpleasant but not acutely distressing, such as general unhappiness, low self-esteem, and feelings of anger and sadness" (Rigby, 2003, p. 584). A study by Mynard et al. (2000) supported this result finding that general peer victimization is associated with poor self-worth. Storch & Esposito (2003) also present information that negative peer experiences can lead to low self-esteem, introversion and internalizing symptoms that can increase the child's risk of exposure to trauma. The second category is poor social adjustment. "This normally includes feelings of aversion toward one's social environment, evident through expressed dislike for school or workplace, manifest loneliness, isolation, and absenteeism (Rigby, 2003, p. 584). The third category is psychological distress. "This is considered more serious than the first 2 categories and includes high levels of anxiety, depression, and suicidal thinking" (Rigby, 2003, p. 584). Swearer et al., (2004) provided a review of literature on the outcomes of bullying, suggesting that "students who are involved in the bully/victim continuum are at increased risk for depression, anxiety, and related difficulties (i.e., external locus of control, increased sense of hopelessness, and low self-esteem)" (p. 73). The fourth

category is physical unwellness. This includes signs of physical disorder that are present in medical diagnoses as well as psychosomatic symptoms (Rigby, 2003). It can be noted that some of the previously described behaviors actually lend themselves to another internalizing disorder, that is, posttraumatic stress disorder. Miller et al. (1998) discusses a dealing with victimization as a trauma process including an initial stage of acute physical or psychological trauma – child's response is feeling overwhelmed, intimidated and powerless, recurring thoughts of experience; second stage denial and avoidance - inhibit thoughts and feelings; recurrence of memories and flashbacks to the acute physical trauma, then unconscious denial; then therapeutic reassessment child begins to talk about what happened; final stage acceptance and resolution. This suggests that through viewing victimization as a traumatic experience, PTSD symptomology is an area that should be examined in relation to victims of bullying. The following section provides further discussion into this area.

Posttraumatic Stress Disorder

The extant research on victims of peer bullying and sibling victimization shows clearly that victims are susceptible to both anxiety and depression symptomology. Another very important outcome of bullying that has not been examined significantly in the literature is that of PTSD and the consideration of whether victims of bullying (both peer and sibling) are prone to exhibit the symptoms of this disorder. There is debate over whether victimization at the hands of bullies can be considered PTSD, which presumes a major catastrophic event (i.e. war) as the trigger for symptomology; however, it has been argued that children can experience symptomology of PTSD and even meet the criteria

for diagnosis as a result of victimization by their peers (Weaver, 2000). According to the American Psychological Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) Posttraumatic Stress Disorder (PTSD) can be diagnosed by the meeting the following criteria: A person exposed to a traumatic event in which the person either experienced, witnessed or was confronted with some event that involved actual or threatened death or serious injury and that the persons response to this event involved intense fear, horror or helplessness (it is important to note that in children this can occur through disorganized or agitated behavior). The traumatic event can be persistently re-experienced by recurrent and intrusive distressing recollections of the event (repetitive play for young children); recurrent dreams of the event (for children these can be frightening without recognizable content); acting as though the event were occurring (i.e. hallucinations or flashbacks) (in children, trauma-specific reenactment can happen); intense distress to cues that resemble the event. There must also be persistent avoidance of stimuli associated with the trauma, duration of the disturbance for longer than one month, and it must cause clinically significant distress and/or impairment in social, occupational or other areas of normal functioning (APA, 2000).

Research performed by Storch & Esposito (2003) examined the relationship of different types of peer victimization to posttraumatic stress in victims. The participants in this study were primarily Hispanic and African-American children. Variables were measured through self-report questionnaires, The "Social Experience Questionnaire (SEQ)" and the Posttraumatic Stress Subscale of the "Trauma Symptoms Checklist for Children TSCC" (Storch & Esposito, 2003). Findings from this study indicate that there is a positive relationship between overt and relational victimization and posttraumatic

stress. The authors interpret these findings by stating that repeated victimization can result in those children displaying symptoms of posttraumatic stress such as dreams and flashbacks, avoidance and heightened physiological reactivity (Storch & Esposito, 2003). The authors go further by proposing that perhaps children victimized by bullies are more susceptible to more severe traumas and exposure to violence and abuse. Mynard et al. (2000) also presented findings which correlated bullying with posttraumatic stress, finding a positive association between general bullying behaviors and posttraumatic stress symptoms; Mynard et al. (2000) stated that "our data suggests that around one third of bullied children may suffer from clinically significant levels of posttraumatic stress" (p. 820). Posttraumatic stress disorder can have considerable effects on children over an extended period of time. The presentation of outcomes associated with being victimized show that these children and adolescents are very negatively affected by bullying behaviors and that the effects of victimization can cause significant mental health problems. Though the previously mentioned studies showed a connection between peer victimization and PTSD, further inquiry into this realm is necessary. At this time there is no extant literature examining a possible link between sibling victimization and PTSD symptomology. Therefore, the examination of sibling and peer victimization in relation to subsequent posttraumatic stress symptomology is of vital importance and is a central purpose of this study.

Assessment of PTSD symptomology

In order to effectively measure the posttraumatic stress disorder symptomology for children who have experienced sibling and peer victimization it is vital to use

appropriate measures. Measures that have been utilized in order to measure posttraumatic stress disorder symptomology for children include the Children's PTSD Inventory; the Impact of Events Scale; the Child Post-Traumatic Stress Disorder Reaction Index; the Child PTSD Symptom Scale; When Bad Things Happen and the Kauai Recovery Index (KRI) (Evans & Oehler-Stinnett, 2006). Storch & Esposito (2003) utilized the posttraumatic stress scale from the Trauma Symptoms Checklist for Children (TSCC) in their examination of posttraumatic stress and peer victimization. It was previously stated that self-report measures are one of the best methods available for establishing perceptions of problems and internalized states. Due to the use of the TSCC within a population of children that have been victimized by their peers, it has been determined to be the best measure for the purpose of this study, which is to examine relationships between peer and sibling victimization and posttraumatic stress disorder symptomology. Additionally, the OSU-PTSD Scale (Evans & Oehler-Stinnett) will be modified in order to address its utility in assessing children who have been victimized by their peers and siblings.

Summary

Research on sibling relationships indicates that siblings and their interactions are very important when examining outcomes for children. An area in which there is a paucity of literature is that of looking at sibling relationships that have a victimization component, similar to peer victimization, which has been extensively studied in the literature.

Victimization is an important area of study in that it is associated with many negative outcomes for those children who are repeatedly victimized. The previous sections presented the numerous negative outcomes of victimization by peers and siblings, specifically anxiety and depression as well as self-esteem and school problems. Overall, the literature has pretty well established many of the outcomes that victimized children are susceptible to, due to repeated negative actions over time. Further, outcome literature for victims these victims paint a relatively dire picture with multiple negative outcomes, including significant mental health impairments that can greatly impact the child's relationships, academic functioning, etc. However, it was noted that an important outcome has been mainly left out with regard to the study of outcomes for victims of peer victimization, and completely left out for victims of sibling victimization; that outcome is PTSD symptomology. The following sections provide a brief overview of additional variables that were included in this study.

Related Variables

Parenting Variables

Parenting variables have been extensively studied in relationship to victimization, specifically regarding those children who are victimizing other children. Research has shown that family variables such as parental style (Ahmed & Braithwaite, 2004; Baldry & Farrington, 2000), parental attitude (Rican, 1995; Rigby, 1993; Rican, Klicperova & Koucka, 1993), family cohesion/power (Stevens, DeBourdeaudhuij & Van Oost, 2002; Berdondini and Smith, 1996; Bowers et al., 1994, 1992), parental support (Perren & Hornung, 2005; Demaray & Malecki, 2003; Haynie, Nansel, Eitel, Crump, Saylor &

Simons-Morton, 2001) and parental negative behaviors (Shields & Cicchetti, 2001; Duncan, 1999b; Strassberg, Dodge, Pettit and Bates, 1994) have great influence over those children identified as bullies in the literature.

When examining those children who are being victimized, parental variables such as parental over-involvement, hostility, inadequate monitoring, lack of warmth, inconsistent discipline variables that are associated with victims (Rican et al., 1993; Bowers et al., 1994). However, some studies have shown that those who have been victimized tend to have positive perceptions of their parents and more cohesive families, more in line with those who are not involved in bullying behaviors (Bowers et al., 1992; Bowers et al., 1994; Stevens et al., 2002), as well as with positive perceived levels of support from their parents (Demaray & Malecki, 2003); Haynie et al., 2001; Perren & Hornung, 2005). Research into parental variables and their relationship to victimization has been generally accepted and as a result these variables were not included in this study.

School Variables

There are a number of important school variables that have been found to have a significant correlation with bullying behaviors. Boulton & Smith (1994) stated that bullies are students that are rejected by their peers, and Ahmed (2001) stated that bullies feel disengaged from the school community. Ahmed & Braithwaite (2004) found that bullies tend to dislike the school setting at higher levels than victims and non-bully/non-victims. An important variable in whether or not a child is displaying bullying behaviors or is being victimized is peer support. However, other research indicates that bullies tend

to have higher peer support and it is the victims that have low support from peers (DeMaray & Malecki, 2003). Other studies have found that bullies tend to report higher levels of popularity than victims (Karatzias, Power & Swanson, 2002) and that bullies value popularity at the levels of non-bully/non-victim children (O'Moore & Kirkham, 2001). Risk factors that have been identified for children to become victims of bullying include low popularity and having no friends (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999; Hodges, Malone & Perry, 1997). Perren & Hornung (2005) found that bullies report higher peer acceptance and report being well liked by their classmates while victims report low peer acceptance. Peer support is important for children, and findings seem to designate that bullies have high levels of peer acceptance and support; victims have low levels of support. This indicates that peer variables can have an influence over bullying behaviors.

Along with feelings towards school and peer influences, teacher variables may also impact bully/victim behaviors. DeMaray & Malecki (2003) found that bullies tend to perceive much less support from their teachers than children who are not bullies. Because the schools are the primary setting where children's bullying behaviors arise, it is important to acknowledge that these variables serve to have an influence on children who are bullies. However, as this area has been studied extensively in the victimization literature, and therefore was not utilized as a variable in this study.

Demographic Characteristics

Overall, when looking at the incidences of bullying behavior and victimization one might make the assumption that boys are most often bullies due to the often physical

nature of the interaction between bullies and their victims. Due to this factor, boys were most often the focal point of studies examining bullying behaviors. Previous discussion focused on the distinction between the two forms of victimization, overt and relational. It is possible that the focus of bullying and victimization studies left out girls due to the complexity and subtleness of relational victimization, which is much more difficult to study due to its covert nature (Crick & Grotpeter, 1995). At this point, knowledge of the existence of relational victimization has brought several conclusions regarding the interaction between gender, bullying and victimization.

When examining these two subsets of aggressive behaviors it has been found that while boys are more often found to be involved in the more overt forms of bullying, girls are also participating in aggressive acts; however those acts are more likely to be occurring through relational aggression (Crick & Grotpeter, 1995; Young et al., 2006). In contrast, boys are more likely to participate in both forms of aggression in equal amounts (Young et al., 2006).

Overall, studies have shown that there is no difference between boys and girls when examining incidents of bullying behaviors (Swearer & Cary, 2003) and that girls tend to be at risk for victimization just as much as boys (Perry, Kusel & Perry, 1988). When examining gender differences among victims of the different forms of bullying, a study of overt victimization concluded that boys and rejected children are more likely to be victims more so than girls and nonrejected children (Boulton & Underwood, 1992; Perry et al., 1988; Olweus, 1978, 1991, 1993) Boys reported significantly more overt victimization than girls, however there was no significant difference between girls and boys on reports of relational victimization (Crick & Grotpeter, 1996). It can be assumed

from this that while girls may not be being victimized through overt forms of victimization, they are being victimized by relational methods. It is vital to examine both genders when studying the different forms of victimization, due to several conclusions found in the existing literature. Boys and girls are both being victimized by their peers; when examining differences in the subtypes of peer victimization it seems that girls are more likely to be victims of relational bullying and that boys are more likely to be victims of overt victimization; however, there is not conclusive evidence suggesting that boys never get relationally victimized and that girls never get overtly victimized. Examination of factors that influence victimization of either kind must include a representative sample of both males and females in order to examine incidents of relational and overt victimization.

Sibling Specific Variables

Birth order is an important variable that is examined within the scope of this study. Overall, this factor has not been examined extensively and has not been examined at all within the scope of sibling victimization. The following presents the findings for the variables of birth order followed by a brief discussion of age, which was not included as a variable in this study. The majority of research presented highlights findings related to birth order.

Abramovitch et al. (1986) found that age interval between siblings was not significant and that aggressive behavior was more dependent on birth order. However, birth order and gender may not contribute to differences in conflict levels between siblings (Graham-Bermann, 2001). Some research has found that those with more

siblings are more likely to bully others in the school setting (Ma, 2001). Martin & Ross (1995) stated that the relationship between birth order and the sibling relationship is highly important and that older children tend to have more power over their younger sibling and that aggression by older siblings is more potent. This may have implications when examining birth order in the context of sibling victimization as one of the essential points of the definition is that of a power imbalance.

Other findings related to birth order differences and sibling conflict include findings such as older siblings being more likely to refer to privacy issues and immature behavior, where younger siblings are more concerned about physical aggression, suggests that older and younger siblings participate in conflict with each other for different reasons (McGuire et al. 2000). Younger siblings that grow up with older siblings are at more risk for the development of conduct problems, and are more likely to have poor relationships with their peers (Bank et al., 1996).

Within the sibling relationship, birth order can be a significant factor when examining children's aggressive behaviors. Through a longitudinal study of sibling interaction, Abramovitch et al. (1986) found that older siblings were the initiators of behavior (either aggressive or prosocial) at all three times, whereas the younger siblings were more often imitating the behavior of their older siblings. Other findings related to birth order include that in a study of young children, the firstborn siblings were often more aggressive than the younger siblings (Martin & Ross, 1995).

It has also been found by several researchers that while those older siblings tend to be more aggressive than their younger siblings, over time, those levels of aggression tend to balance out (Martin & Ross, 1995; Abramovitch et al. 1986). Overall, it seems

that birth order is likely to have a significant impact on whether or not sibling victimization is occurring.

In addition to the exploration into sibling and peer victimization, as well as PTSD symptomology, several demographic variables, along with the variable of birth order will be examined. Relationships between gender and birth order with sibling victimization, and gender with peer victimization were studied.

Purpose of the Study

Extensive research has been done on variables such as peer, school and parental variables that may influence victimization. The review of the literature has highlighted the many factors that impact sibling and peer relationships, and subsequently how those relationships impact sibling and peer victimization. It is hypothesized by the researcher that in light of these factors it is likely to be found that sibling victimization is not only something that occurs and impacts children daily, but also that it is another factor that may impact whether or not a child is a victim of bullying at school.

There is a paucity of literature when considering the sibling relationship and what the influence of negative behaviors between siblings could contribute to peer victimization in the school setting. Also, it was previously stated that there is a significant amount of literature linking victimization to internalizing problems such as anxiety and depression; however, very few studies have examined possible posttraumatic stress disorder symptomology within this population. Furthermore, few studies have been conducted which have examined sibling victimization as having a relationship with

peer victimization and then at whether or not sibling victimization can result in subsequent posttraumatic stress disorder symptomology.

Therefore, there are three main purposes for this study. First, the existence of sibling victimization was explored and prevalence rates of both sibling and peer victimization is presented using the methodology described by Crick and Grotpeter (1996). This was assessed through the use of a self-report measure, which was modified to measure victimization in concordance with the previously stated definition for this study. The second purpose of this study is to examine the nature of the relationship between sibling victimization and peer victimization. Finally, there is an exploration of sibling victimization and peer victimization in order to examine their relationship with the outcome of PTSD symptomology. This was addressed utilizing two self-report measures to assess the three main domains of PTSD symptomology. In order to address purposes two and three, multiple regression analyses were ran in order to examine these interactions. Additionally, the relationship between gender and peer and sibling victimization was examined, along with the relationship between birth order and sibling victimization. The methodology of this study and subsequent results and statistical analyses are presented in the following chapters.

Research Questions and Hypotheses

Research Questions

1. What is the prevalence of sibling victimization at home within a sample of fifth to eighth grade children and adolescents, measured by the SEQ-SR (adapted,original)?

2. What is the prevalence of peer victimization at school within a sample of fifth to eighth grade children and adolescents, measured by the SEQ-SR (adapted,original)?

3. Is there a difference between boys and girls on the different types of peer and sibling victimization (physical, verbal, relational) within a sample of fifth to eighth grade children and adolescents measured by gender and the SEQ-SR (adapted,original)?

4. Are there differences within birth order placement and sibling victimization within a sample of fifth to eighth grade children and adolescents measured by birth order and the SEQ-SRS (adapted,original)?

5. Is sibling victimization predictive of peer victimization within a population of fifth to eighth grade children and adolescents, as measured by the SEQ-SR (adapted, original) for siblings and peers?

6. Is sibling victimization predictive of posttraumatic stress disorder symptomology within a population of fifth to eighth grade children and adolescents as measured by the SEQ-SR (adapted, original), TSCC (adapted) and OSU PTSD Scale (adapted)?

7. Is peer victimization predictive of posttraumatic stress disorder symptomology within a population of fifth to eighth grade children and adolescents as measured by the SEQ-SR (adapted,original), TSCC (adapted) and OSU PTSD Scale (adapted)?

8. Does the experience of both sibling and peer victimization provide for more unique variance in the prediction of posttraumatic stress disorder symptomology than either in isolation within a population of fifth to eighth grade children and adolescents as measured by the SEQ-SR (adapted,original), TSCC (adapted) and OSU PTSD Scale (adapted)?

Hypotheses

1. Prevalence levels of sibling victimization will be in the 20% range as noted by Duncan (1999a).

2. Prevalence rates of peer victimization will be in the 30% range as noted by Nansel et al. (2001).

3. Boys will experience more sibling and peer victimization by physical aggression, whereas girls will experience more sibling and peer victimization by relational aggression. There will be no differences for gender on the verbal aggression level of peer victimization.

4. Participants that are not firstborn participants will be more likely to have been victimized by their siblings than firstborn participants.

5. Sibling victimization will serve as a predictor of peer victimization.

6. Sibling victimization will be predictive of posttraumatic stress disorder symptomology.

7. Peer victimization will be predictive of posttraumatic stress disorder symptomology.

8. Those participants who have experienced both sibling and peer victimization will contribute more unique variance to the prediction of posttraumatic stress disorder symptomology than either in isolation.

CHAPTER III

METHODOLOGY

The purpose of this chapter is to provide explanation of the participants, procedure, instrumentation and research design utilized in this study.

Participants

In October and November 2007, 540 fifth through eighth grade students from two middle schools in rural Oklahoma and Texas were asked to take home packets to their parents that included information about the study, sample questions and parental consent forms. Parent consent and child assent was obtained for 244 students, showing a response rate of 45% for the study. This provided the researcher with the previously stated sample size required for this study (>100 participants). Stevens (2002) stated that when sample size is large (100 or more subjects per group) then power is not an issue, indicating that the sample size gained through data collection is adequate for subsequent statistical analyses. Demographic characteristics of participants can be found in Table 2.

Procedure

The Institutional Review Board approved this study in July 2007. Approval was gained from the school districts and principals were contacted. The schools at which data collection took place were offered the incentive of receiving a profile of bullying

and victimization within their schools. Each received detailed reports following analysis of the data. In October and November 2007, packets were sent home with children enrolled at both schools. Each packet included a parent information letter, sample questions and parental consent forms. Parents were given two to three weeks to return consent forms. The response rate for consent/assent for the study was 45% (i.e., with 244 of 540 consent forms being returned by parents), and all individuals for whom assent and consent were given participated in the study. Three days of data collection were conducted at the middle school in Oklahoma; one day of data collection was performed in Texas.

On the data collection days, students were brought into either the library or cafeteria, depending on the school location. Each participant was then provided with a packet including the child assent form, an index card and six questionnaires: The Social Experience Questionnaire – Self Report (SEQ-SR) (adapted, peer), the Social Experience Questionnaire – Self Report (SEQ-SR) (adapted, sibling), the Ways of Coping Checklist (WCCL), the Posttraumatic Stress Subscale of the Trauma Symptom Checklist (TSCC) (adapted), the OSU-PTSD scale (adapted) and the personal data information demographic sheet. The WCCL was not used for analysis in this study. The principal investigators provided each student, in the group format, with a detailed description of how to complete each measure. Students were additionally directed to write their name and grade on the index card. This procedure was necessary for a student to be part of the drawing for a twenty dollar Wal-Mart© gift card, the incentive provided for participation in the study. If students were not interested in the drawing they were directed to choose a small prize after completing the packet. At the end of these directions, students were provided

with a definition of bullying and then told to begin. Generally, it took students between 30 and 60 minutes to fill out each packet.

Participation in this study was completely confidential and therefore, students could not be linked to their questionnaires immediately after completion. Each packet was number coded so that the questionnaires filled out by the same student could be identified in case of separation. Following the completion of all questionnaires, the principal investigator and research assistants collected the packets from each student and scanned the packet to note any missing data. Students who had skipped questions or pages were asked to complete them. The packets were then placed into two separate boxes. Assent forms were removed from the packet and placed into one box. Completed questionnaires were placed in a different box. Following data collection, all participants' responses were entered into SPSS (version 16.0).

Participants in this study were not randomly assigned into groups; therefore, this study did not make use of an experimental design. Packets were put together in a way that provided for a partial counterbalance of the measures. Therefore, packets were put together with the measures in different orders; however, all packets had one of the two SEQ-SR (adapted) questionnaires presented prior to the presentation of the PTSD measures. This "partial counterbalance" was done because it was necessary for students to answer the measures assessing peer and sibling victimization prior to those assessing PTSD symptomology.

Instruments

This section includes a description of the instrumentation utilized in this study. Measures included the Social Experiences Questionnaire – Self Report, revised (peer) (SEQ-SRP), the Social Experiences Questionnaire – Self Report, revised (sibling) (SEQ-SRS), the Trauma Symptom Checklist for Children, revised (TSCC) and the OSU-PTSD Scale (adapted). Personal data information was also collected.

Social Experience Questionnaire

The Social Experience Questionnaire – SR (SEQ-SR; Crick & Grotpeter, 1996) was used in order to assess the frequency unto which children experience overt and relational victimization. The SEQ-SR was developed with the purpose of assessing both overt victimization and relational victimization, as well as to assess positive aspects of the children's social experiences (Crick & Grotpeter, 1996). The SEQ-SR was utilized in a study conducted by Storch & Esposito (2003), which examined the relationship between posttraumatic stress symptomatology and peer victimization, thus making it a good fit for the purposes of this study.

The SEQ-SR is made up of three scales (5 items per scale) each assessed on a likert scale (1 – never; 5 – always) that assesses the frequency at which peers are performing one of three actions on the child. The first scale, Relational Victimization, measures how often peers attempt to threaten or harm relationships. The second scale, Overt Victimization, measures how often children physically harm the target student. The third scale, Prosocial Attention, measures the frequency that children act prosocially towards the child; due to the nature of the study, this scale was not utilized. Chronbach's alpha coefficients are .80, .78 and .77 for the relational victimization, peer victimization

and prosocial attention scales, indicating high reliability for all three scales (Crick & Grotpeter, 1996). Additionally, a principal-components factor analysis as performed by Crick & Grotpeter (1996) showed factor loadings of greater than .60 for each item on both the relational and overt victimization scales. The SEQ-SR has been shown to have moderate to high reliability levels and it has been described as unique in its ability to measure relational and overt victimization (Crothers & Levinson, 2004).

SEQ-SR has been utilized in studies of the relationship between posttraumatic stress symptomology and peer victimization (see Storch & Esposito, 2003). As noted previously, verbal aggression has been shown in the literature to be a component of peer victimization. Due to this seven additional items were added to the SEQ-SR. The new items were based on definitions of verbal aggression as a component of peer victimization throughout the literature (Olweus, 1993; Smith & Myron-Wilson, 1998), and included items inquiring about being victimized through threats, name-calling, and other verbally aggressive acts. Additional items were also added to the SEQ-SR overt and relational scales to explore other behaviors that might be considered peer victimization, bringing the total item count to 23 on the SEQ-SR adapted measure. Once the additional items were added to the SEQ-SR, an identical SEQ-SR was created in order to assess sibling victimization, thus creating the SEQ-SRP and SEQ-SRS utilized for this study. The word "peer" was changed to "brother/sister" and the word "school" was changed to "home". Administration of the SEQ-SR was also modified so that a detailed description of the definition of sibling and peer victimization could be provided in instructions prior to participants filling out the likert scale items. Data analysis

included a Principal Axis Factor analysis in order to examine the usefulness of the items added to the scale. The results of this analysis are provided in the results section.

The Trauma Symptom Checklist

The Trauma Symptom Checklist (TSCC) for children consists of 54 self-report items for ages ranging from seven to sixteen years old. It was developed by Briere in order to comprehensively assess trauma in children ranging in post-traumatic symptoms from the effects of child abuse and neglect, to witnessing accidents and natural disasters (Sauter & Franklin, 1998). It has been noted in research that the TSCC is useful as a screening tool due to its relatively swift administration time (about 10 to 20 minutes for the whole measure) (Sauter & Franklin, 1998).

Only the Posttraumatic Stress Subscale of the Trauma Symptom Checklist (TSCC) was used to assess post-traumatic stress symptomology, which is consistent with Storch and Esposito (2003). The PTSD subscale of the TSCC consists of ten items measured on a four point likert scale (0 – never; 3 almost always) which measure a variety of post-traumatic stress symptomology including intrusive thoughts about distressing events, nightmares and avoidance of stimuli related to negative experiences. Overall, psychometric characteristics of the TSCC overall show acceptable reliability coefficients (.93 alpha value for PTSD-Total scale) as well as proved to be associated with exposure to childhood sexual abuse, physical abuse and witnessing domestic violence (Sauter & Franklin, 1998; Briere, Johnson, Bissada, Damon, Crouch, Gil, Hanson & Ernst, 2001).

OSU PTSD Scale (adapted)

The OSU PTSD Scale is a self-report scale developed by Evans & Oehler-Stinnett (2006), which is designed to measure items relevant to DSM-IV-TR posttraumatic stress disorder criteria. DSM-IV-TR criteria measured include re-experiencing of the traumatic event, arousal and avoidance of the event. The six factors Avoidance, Re-Experiencing, Interpersonal Alienation, Interference with Daily Functioning, Physical Symptoms/Anxiety and Foreshortened Future, combining for twenty nine total items (Evans & Oehler-Stinnett, 2006). Participants answered items on a five point Likert system (0 – never, 4 – always). The OSU-PTSD scale is meant to be used with children between the ages of Kindergarten to sixth grade; older students were included in data collection but this data was not included in the publication. The original OSU-PTSD scale was meant for students who had experienced a tornado as a traumatic event. Due to this and for the purposes of this study the scale was adapted so that experiences related to victimization by peers and siblings could be more accurately measured. For the purposes of this study, the original factor structure was utilized for statistical analyses.

Personal Data Information

A demographics form was used to collect additional information from the respondents. The demographics form included questions regarding participant age, gender, ethnicity, number of siblings, and birth order.

Data Analysis

The present study examines sibling and peer victimization, their relationship to each other and to subsequent PTSD symptomology. Additionally, two

demographic variables are examined with regard to the different types of victimization. Sibling Victimization is measured by the SEQ-SR (sibling, revised). Peer Victimization is measured by the SEQ-SR (peer, revised) (see Table 1). PTSD symptomology is measured by the TSCC (revised) and OSU-PTSD Scale (revised). First, a factor analysis was conducted in order to examine the revised sibling and peer victimization scales. Then, prevalence data was calculated. Next, analysis of variance procedures were utilized in order to examine demographic variables and sibling and peer victimization. Finally, two multiple regression analyses were conducted. The first examined the relationship between sibling and peer victimization. The second examined both types of victimization with PTSD symptomology. Additionally, item level analyses for all scales are presented.

CHAPTER IV

RESULTS

Preliminary Analysis

This section will include description of results not directly related to answering the eight stated research questions and hypotheses. Item-level analysis of all four measures used (SEQ-SRS, SEQ-SRP, TSCC, and OSU-PTSD) are reported. Further, the reliability analysis of the SEQ-SRP (adapted,original) and SEQ-SRS (adapted,original) measures is presented in order to establish the usability of the measures. Additionally, an exploratory factor analysis (EFA) was conducted with the SEQ-SR (peer and sibling) in order to examine the inclusion of added items, as well as to confirm the factor structure as described by the authors of the scale.

For a summary of instruments, variables measured, and statistical analyses utilized, see Table 1. SPSS version 16.0 for Windows and Microsoft Excel (2007) were used for all statistical computations.

Item-Level Analysis

The following descriptive statistics are presented for each measure: Mean, Standard Deviation, Standard Error of Measurement, frequency and percentages. The item analysis for the SEQ-SRS can be found in Table 3. Item analysis of the SEQ-SRP

can be found in Table 4. Item analysis for the OSU-PTSD scale can be found in Table 5. Results for the TSCC item analysis are located in Table 6.

Intercorrelations between Dependent Variables

Intercorrelations for all dependent variables are presented in Tables 7-10. Table 7 includes intercorrelations between the adapted measures. Table 8 provides correlations between all original measures. Table 9 presents correlations between adapted and original measures. Table 10 presents correlations between the SEQ-SRS and SEQ-SRP original and adapted scales.

When examining the intercorrelation between dependent variables, all are significant ($p=.000$; α .001). A further examination of correlations between measures shows correlations ranging from .346 to .983.

Reliability Analysis

Prior to conducting the exploratory factor analysis, it was determined that a reliability analysis was necessary in order to address whether or not the SEQ – SRS and SEQ-SRP were measuring what they were intending to measure, i.e. peer and sibling victimization. To assess whether the 23 items composing the SEQ-SRS (adapted) and the 23 items composing the SEQ-SRP (adapted) formed reliable scales (respectively), Chronbach's alpha was computed. The alpha for the 23 items from the SEQ-SRS (adapted) was .964, indicating that the items for a scale that has good internal consistency reliability. Similarly, the alpha for the SEQ-SRP (adapted) scale was .956 also indicating good internal consistency. Additionally, Chronbach's Alpha was computed for the SEQ-

SRS (original) and SEQ-SRP (original) scales. The alpha for the ten item SEQ-SRS (original) was .929 and for the SEQ-SRP (original) was .913, again indicating good internal consistency for both original item based scales. Therefore, it was determined that it would be appropriate to conduct exploratory factor analyses with the SEQ-SRS (adapted, original) and SEQ-SRP (adapted, original) data.

Factor Analysis

Principal axis factor analysis with direct oblimin rotation was conducted to assess the underlying structure for the 23 items on the SEQ-SRS (adapted) and SEQ-SRP (adapted). An oblique rotation was chosen as the method of rotation because it is assumed that due to the nature of the concepts being examined that there is a likelihood of correlation between factors. Three factors were requested for each analysis, based on the fact that the items were designed to index three types of victimization: physical, verbal and relational. Further, a secondary principal axis factoring for the SEQ-SRS and SEQ-SRP based on the original scale items. For the secondary factor analysis, only two factors were requested for each analysis, based on the original authors' factor structure: overt and relational. The author's of the SEQ-SR (Crick & Grotpeter, 1996) utilized a varimax rotation to explore their data, however, for the purposes of this study, a factor analysis utilizing oblimin rotations was examined in order to explore factor structures. Oblimin rotations were utilized due to the nature of the variables in this study to correlate highly with one another. The following sections provide the results for the SEQ-SRS (adapted) factor analysis (request 3 factors); SEQ-SRS (original) factor analysis (request

2 factors), SEQ-SRP (adapted) factor analysis (request 3 factors) and the SEQ-SRP (original) factor analysis (request 2 factors).

SEQ-SRS (adapted)

Assumptions were examined before interpreting factor analysis results. For the SEQ-SRS (adapted), assumptions of independent sampling and normality are met. Further, a KMO statistic of .951 and a significant finding on Bartlett's Test of Sphericity (p=.000) indicate that assumptions were met.

Three factors were requested because items were designed to fall under one of three types of victimization (physical, verbal, relational). After rotation, the first factor accounted for 54.52% of the variance, the second factor accounted for 4.79% of the variance, and the third factor accounted for 3.27% of the variance. Table 11 presents items and the pattern matrix for the rotated factors. Loadings less than .40 were omitted (Stevens, 2002).

Fifteen items make up factor 1, and questions categorized under all headings (i.e. physical, verbal and relational) are present, with loadings ranging from .932 to .446. One item ("How often does your brother/sister at home steal your belongings?") also loads on factor 3 (loading = .439).

On factor two, six items categorized under all three types of victimization were found. Individual item loadings range from .883 to .410. One item ("How often does your brother/sister curse at you?") had a loading of .377. Factor three only includes one item with a loading of .401.

In examining the items making up each factor, it is clear that they did not fall as predicted. Examining items under factor one, the items that were categorized as either "physical" and "verbal" when examined together could be characterized as "direct" bullying. However, the items that fall under the "relational" definition on factor one by nature cannot be described as "direct" or "overt" bullying behaviors and therefore, confuse the results. Factor two, like factor one, contains items categorized under all three definitions of bullying behaviors (physical, verbal, relational). Again, there is no clear description that can explain these items together under this factor. Factor three only contains one item so the utility of the third factor is questioned. This item is one falling under the definition of relational bullying.

SEQ-SRS (original)

Assumptions were examined and met for this analysis (KMO = .912; Bartlett's Test (p=.000). For this analysis, two factors were requested because items were designed to fall under one of two types of victimization (overt, relational) like the items on the original SEQ-SR scale. After rotation, the first factor accounted for 57.67% of the variance, the second factor accounted for 4.81% of the variance. Table 12 presents items and the pattern matrix for the rotated factors. Loadings less than .40 were omitted.

When examining items falling under factor one, all questions categorized under the overt subscale on the original SEQ-SR measure are present, with loadings ranging from .944 to .474. Additionally, two additional items load on factor one ranging from .564 to .410. These items fell on the relational victimization scale on the original SEQ-SR and were not expected to group with the overt items. On factor two, items

categorized under relational victimization were found. These items had loadings ranging from .880 to .459.

In looking at the items making up each factor for the SEQ-SRS (original), it is noted that items fall similarly to those in the original SEQ-SR, with the exception of the two items from the relational victimization scale that load with the overt scale items. This brings to light that sibling victimization may in definition, be different from that of peer victimization.

Through the examination of the SEQ-SRS (adapted) and SEQ-SRS (original) factor analysis results, it seems that items do not fall according to the researcher's hypothesis, nor do they fall in line with the SEQ-SR (Crick & Grotpeter, 1996) original factor structure. This suggests that sibling victimization may not be able to be described and/or measured in the same way as peer victimization, when looking to place definitions to the types of behaviors that are traditionally seen as bullying behaviors. This is an interesting finding and holds implications for the measurement of sibling victimization for future research studies.

SEQ-SRP (adapted)

Assumptions were examined and met for this analysis (KMO = .955; Bartlett's Test (p=.000). Again, three factors were requested because items were designed to fall under one of three types of victimization (physical, verbal, relational). After rotation, the first factor accounted for 52.67% of the variance, the second factor accounted for 4.80% of the variance, and the third factor accounted for 4.12% of the variance. Table 13

presents items and the pattern matrix loadings for the rotated factors. Loadings less than .40 were omitted.

When examining items falling under factor one, questions categorized under the "relational" and "verbal" definitions of bullying are present, with loadings ranging from .902 to .426. Additionally, item six ("How often does another kid at school call you mean names?") also has a loading of .422 on factor three, which calls into question the utility of this item on either factor. These items could be categorized as bullying behaviors with the exception of physical aggression; however it doesn't appear that these items would fit under the category of "direct", "indirect", "covert" or "overt" victimization.

On factor two, items defined as "physical", "verbal" and "relational" victimization were found, with loadings ranging from -.886 to -.479. Additionally, item nine ("How often does another kid kick you?") has a loading of .502 on factor three and item twenty-three ("How often have you had to do something you didn't want to do because another kid spread rumors about you?") has a loading of .463 on factor one, calling into question the utility of these two items on factor two. Even when examining the items making up factor two without the two previously mentioned, it does not seem that these items can be categorized by "direct", "indirect", "covert" or "overt" as was the case with factor one.

Factor three included three items with loadings ranging from .634 to .591. These items all fall under the definition of physical victimization.

In looking at the items making up each factor for the SEQ-SRP (adapted), it is noted that as with the SEQ-SRS (adapted) items did not fall as predicted. This indicates

that perhaps the addition of items meant to measure "verbal" victimization may have impacted the way that all items sort themselves out.

SEQ-SRP (original)

Again, assumptions were examined and met for this analysis (KMO = .908; Bartlett's Test (p=.000). Two factors were requested because items were expected to replicate the factor structure of the original scale. After rotation, the first factor accounted for 52.66% of the variance, while the second factor accounted for 7.40% of the variance. Table 14 presents items and the pattern matrix for the rotated factors. Loadings less than .40 were omitted.

Items making up factor one were consistent with the original relational victimization scale. Items had factor loadings ranging from .844 to .699.

On factor two, items consistent with the overt scale from the original SEQ-SR were present. These items had factor loadings ranging from -.857 to -.716. However item 12 ("How often does another kid pull your hair"?) did not seem to load on either factor, indicating it doesn't have utility with regard to either scale.

In looking at the items making up each factor for the SEQ-SRP (original), item distribution and factor loadings indicate that with one exception, the original scales' factors are confirmed with data from this sample.

Summary

The results from the factor analyses of the SEQ-SRS (adapted) and SEQ-SRP (adapted) did not yield items that factored as predicted by the researcher. For the SEQ-

SRS (adapted) this may have occurred because while there has been research suggesting the existence of sibling bullying, different modalities of the "bullying" may occur and warrant further exploration.

When examining the items of these scales, it is noted that essentially, these questions are behavioral ratings indicating the frequency of different types of aggressive behaviors that, when occur over time and invoke a power differential, would be considered bullying behaviors. In light of this statement, it is believed that even though factor analysis results do not necessarily indicate a clear structure, all scale items represent bullying behaviors and should not be arbitrarily thrown out because factors are not clear. Further, a reliability analysis of items for both measures indicated that all items are useable for the purpose of identifying sibling and peer victimization (respectively). Additionally, the factor analysis of the SEQ-SRP (original) yielded results that were mostly consistent with that of the original scale.

Therefore, the following statistical analyses were conducted in two ways: using the SEQ-SRS (adapted) and SEQ-SRP (adapted) total scores, as well as the SEQ-SRS (original) and SEQ-SRP (original) total scores. This has been done in order for the researcher to be able to answer all proposed research questions, as well as to look at the possible differences between the scales in assessing prevalence, looking at gender and birth order differences and finally, in examining sibling and peer victimization and their relationship with each other and PTSD symptomology. This is not to suggest that there is not importance in having a measure with good psychometric properties that can identify the different constructs of the variables that have been shown to exist by the literature. However, the purpose of this study is not to develop and/or establish a measurement tool

to assess sibling and peer victimization; it is to identify students who have experienced these types of bullying behaviors in line with the previously established definition of bullying and to explore a relationship between sibling and peer victimization and subsequent PTSD symptomology. In light of this, it is reasonable to pose that all items on each measure are assessing sibling and peer victimization, and therefore will be used to answer the research questions for this study. Due to the scope of the current study, discussion of factor analysis results and implications will be discussed as limitations and possible future directions of research in this area, but are not be examined further within the context of the research questions being answered by this data.

Primary Analysis

Research Question One

What is the prevalence of sibling victimization at home within a sample of 10 to 14 year old children and adolescents measured by the SEQ-SRS (adapted)?

The prevalence of sibling victimization was measured by the SEQ-SRS (adapted and original). Prevalence data is presented based on both the adapted items and the items from the original measure.

Prevalence data was calculated according to methodology described in Crick & Grotpeter (1995). Prevalence was determined by computing average scaled scores for the SEQ-SRS (adapted and original). Further, the sample mean was calculated for each of the different types of victimization measured by both the adapted and original measure. Children and adolescents with scores one standard deviation above the sample mean for

the SEQ-SRS (adapted), SEQ-SRS (original) were identified as victims of sibling bullying.

SEQ-SRS (adapted and original)

In looking at the SEQ-SRS (adapted) total score, forty-five of two-hundred thirty-two respondents (19.40%) reported having been victimized by a sibling, indicating a prevalence rate of nearly 20% of the sample. When examining prevalence by the SEQ-SRS (original) total score, forty-three of two-hundred thirty-two respondents (18.53%) reported having been victimized by a sibling, indicating a negligible difference in the identification of those experiencing sibling victimization by measure.

Research Question Two

What is the prevalence of peer victimization at school within a sample of 10 to 14 year old children and adolescents measured by the SEQ-SRP (adapted)?

Prevalence data were calculated the same as described for research question one. The results for the prevalence of peer victimization are as follows:

SEQ-SRP (adapted) (original)

Forty of the two-hundred and forty-two respondents (16.53%) total score on the SEQ-SRP (adapted) reported having been victimized by a peer at school. When examining prevalence by the SEQ-SRP (original) total score, forty of two-hundred forty-two respondents (16.53%) reported having been victimized by a peer, indicating no difference for prevalence of peer victimization on the adapted and original measures.

Research Question Three

Is there a difference between boys and girls on the different types of peer and sibling victimization (physical, verbal, relational) within a sample of 10 to 14 year old children and adolescents measured by gender and the SEQ-SRS (adapted) and SEQ-SRP (adapted)?

A single-factor multivariate analysis of variance was conducted to assess if there were differences between the gender on a linear combination of sibling and peer victimization (physical, verbal, relational) as measured by the SEQ-SRS (adapted) and SEQ-SRP (adapted). Further, the SEQ-SRS (original) and SEQ-SRP (original) will be examined as well, however with regard to the original scales (overt, relational). An examination of the assumptions of MANOVA will be presented prior to the results of this analysis.

According to Stevens (2002), there are three assumptions of MANOVA: Observations must be independent; observations on the dependent variables should have a MV normal distribution in each group; population covariance matrices of the p dependent variables must be equal. For both analyses, all assumptions were met (adapted: Box's M=27.450, F (21, 1.693E5) = 1.270, p=.182; original: Box's M=16.182, F(10, 2.180E5) = 1.587, p=.103). Therefore Wilk's Lambda is appropriate to utilize for interpretation of the analysis of gender with the different types of victimization for both the adapted and original measures.

For the analysis using the adapted measures, a significant difference was found, Wilk's $\lambda = .865$, $F(6,223) = 5.796$, $p=.000$, multivariate $\eta^2=.135$. See Table 15a for

between-subject results. These results indicate that there is a significant difference on gender for the SEQ-SRS (adapted: P, V, R) and for the SEQ-SRP (adapted: R). Exploration of mean total scores for these types of victimization show that for SEQ-SRS (P, V, R) and SEQ-SRP (R) females are experiencing greater rates of victimization than males.

When utilizing the original scales for both sibling and peer victimization, a significant difference was found, Wilk's $\lambda = .869$, $F(4,225) = 8.461$, $p=.000$, multivariate $\eta^2=.131$. See Table 15b for between-subject results. These results indicate that there is a significant difference on gender for the SEQ-SRS (original: overt, relational) and for the SEQ-SRP (original: relational). An exploration of the mean total scores for these types of victimization show that for SEQ-SRS (overt, relational) and SEQ-SRP (relational), females are experiencing greater rates of victimization than males.

Research Question Four

Are there differences within birth order placement and sibling victimization within a sample of 10 to 14 year old children and adolescents measured by birth order and the SEQ-SRS (adapted)?

A single-factor analysis of variance was conducted to assess if there were differences in birth order on a linear combination of sibling victimization as measured by the SEQ-SRS (adapted). The same analysis was also calculated using the SEQ-SRS (original) for comparison purposes.

Prior to presenting results for this section, the assumptions of ANOVA were examined. These include independent observations, normality, and homogeneity of

variance (Stevens, 2002). All assumptions examined were met using both measures (SEQ-SRS adapted and SEQ-SRS original) and therefore, the results of the analysis of variance are interpretable (adapted: Levene Test, F (1, 219) = .150, p=.699; original: F(1,216) = .053, p=.819).

See Table 16 for between-subject results. For both analyses: birth order x SEQSRS total score (adapted) and birth order x SEQ-SRS total score (original) there was no significant difference found, F (1,219) = .699, p =.404; F(1,216) = .006, p=.936. These results indicate that there is not a significant difference for birth order placement for students experiencing sibling victimization, meaning that there is no difference in the rate of sibling bullying for first born students and non first born students.

Research Question Five

Is sibling victimization predictive of peer victimization within a population of 10 to 14 year old children and adolescents as measured by the SEQ-SRS (adapted,original) and SEQ-SRP (adapted,original)

A regression analysis was utilized in order to examine sibling victimization as a predictor of peer victimization. The SEQ-SRS total score (adapted) was entered as the predictor, the SEQ-SRP total score (adapted) was entered as the dependent variable. This procedure was repeated utilizing the SEQ-SRS total score (original) and SEQ-SRP total score (original), in order to examine if the different measures accounted for differences in analysis results.

The assumptions of regression analysis (independence of observations, linearity of relationships, homoscedasticity, an absence of multicollinearity, and a model without

specification errors) were examined prior to the presentation of results. After examination, it was determined that all assumptions were met and therefore the analysis should produce interpretable results (Durbin-Watson statistic for SEQ-SRS and SEQ-SRP adapted measures =1.917; SEQ-SRS and SEQ-SRP original measures = 1.943; the mean centered leverage statistic (h) for both analyses (adapted scales, original scales) =.004).

Regression Results (SEQ-SRS, adapted; SEQ-SRP, adapted)

A regression analysis was conducted to determine the amount of variance sibling victimization contributes to peer victimization. Sibling victimization significantly predicted peer victimization, $F(1, 230) = 73.09$, $p=.000$ ($\alpha < .05$). The adjusted R squared value was .238. This indicates that 23.8% of the variance in peer victimization was explained by sibling victimization. According to Cohen (1988), this is a medium effect ($R^2=.24$). Zero-order correlations, semi-partial correlations and other values for this analysis are presented in table 17.

Regression Results (SEQ-SRS, original; SEQ-SRP, original)

A regression analysis was conducted to determine the amount of variance sibling victimization contributes to peer victimization. Sibling victimization significantly predicted peer victimization, $F(1, 226) = 52.51$, $p=.000$ ($\alpha < .05$). The adjusted R squared value was .185. This indicates that 18.5% of the variance in peer victimization was explained by sibling victimization. According to Cohen (1988), this is a small effect size ($R^2=.19$). Zero-order correlations, semi-partial correlations and other values for this

analysis are presented in table 18. This indicates that the amount of variance accounted for in peer victimization was slightly higher when utilizing the data from the adapted measures than from the original measures. This is an interesting finding that will be explored in Chapter V.

Research Questions Six, Seven and Eight

Is sibling victimization predictive of posttraumatic stress disorder symptomology within a population of 10 to 14 year old children and adolescents as measured by the SEQ-SRS (adapted,original), TSCC (adapted) and OSU PTSD Scale (adapted)?

Is peer victimization predictive of posttraumatic stress disorder symptomology within a population of 10 to 14 year old children and adolescents as measured by the SEQ-SRP (adapted,original), TSCC (adapted) and OSU PTSD Scale (adapted)?

Does the experience of both sibling and peer victimization provide for more unique variance in the prediction of posttraumatic stress disorder symptomology than either in isolation within a population of 9 to 14 year old children and adolescents as measured by the SEQ-SRS (adapted,original), SEQ-SRP (adapted,original), TSCC (adapted) and OSU PTSD Scale (adapted)?

A simultaneous equation multiple regression was utilized in order to examine research question six, seven and eight. Four different analyses were conducted. The first utilized the SEQ-SRS total score (adapted) and SEQ-SRP total score (adapted) as predictors, and the dependent variable measured by the OSU-PTSD scale (total score of items making up the original factor structure of the scale). The second was the same as the first, except that the SEQ-SRS (original) and SEQ-SRP (original) total scores were entered as the IV. The third analysis again utilized the SEQ-SRS (adapted) and SEQ-

SRP (adapted) as predictors, however, this analysis utilized the TSCC (adapted) as the dependent variable. The fourth and final analysis utilized the SEQ-SRS (original) and SEQ-SRP (original) with the same DV as analysis three. As with research question five, the assumptions of statistical analysis using multiple regression techniques were addressed before going through with the analyses.

The assumptions of multiple regression analysis (independence of observations, linearity of relationships, homoscedasticity, an absence of multicollinearity, and a model without specification errors) were examined prior to the presentation of results. After examination, it was determined that all assumptions were met and therefore the analysis should produce interpretable results (Durbin-Watson statistic for SEQ-SRS (adapted) and SEQ-SRP (adapted measures) =1.70; 1.80; SEQ-SRS (original) and SEQ-SRP (original) measures = 1.81; 1.83; the mean centered leverage statistic (h) for all analyses (adapted scales, original scales) =.009.

Multiple Regression Results (IV: SEQ-SRS, adapted and SEQ-SRP, adapted; DV: OSU-PTSD, adapted)

Simultaneous equation multiple regression was conducted to determine the amount of variance sibling victimization and peer victimization contribute to PTSD symptomology. Sibling victimization and peer victimization significantly predicted peer victimization, $F(2, 228) = 101.51$, $p=.000$ ($\alpha < .05$). The adjusted R squared value was .466. This indicates that 46.6% of the variance in PTSD symptomology was explained by the combination of sibling and peer victimization. According to Cohen (1988), this is a large effect ($R^2=.47$). Zero-order correlations, semi-partial correlations and other

values for this analysis are presented in table 19. An examination of these values indicates that peer victimization contributes more variance to the prediction of PSTD symptomology when compared to sibling victimization.

Multiple Regression Results (IV: SEQ-SRS, original and SEQ-SRP, original; DV: OSU-PTSD, adapted)

A simultaneous equation multiple regression analyses was conducted to determine the amount of variance sibling victimization and peer victimization contribute to PTSD symptomology using the SEQ-SRS and SEQ-SRP original total scores. Sibling victimization and peer victimization significantly predicted peer victimization, $F(2,224) = 96.30$, $p=.000$ ($\alpha < .05$). The adjusted R squared value was .458. This indicates that 45.8% of the variance in PTSD symptomology was explained by the combination of sibling and peer victimization. According to Cohen (1988), this is a large effect ($R^2=.46$). Zero-order correlations, semi-partial correlations and other values for this analysis are presented in table 20. These values suggest that peer victimization contributes more variance to the prediction of PSTD symptomology when compared with sibling victimization. When comparing results of the different measures (original, adapted) differences are negligible.

Multiple Regression Results (IV: SEQ-SRS, adapted and SEQ-SRP, adapted; DV: TSCC, adapted)

Simultaneous multiple regression was conducted to determine the amount of variance sibling victimization and peer victimization contribute to PTSD symptomology. Sibling victimization and peer victimization significantly predicted peer victimization,

$F(2, 217) = 81.97$, $p=.000$ ($\alpha < .05$). The adjusted R squared value was .425. This indicates that 42.5% of the variance in PTSD symptomology was explained by the combination of sibling and peer victimization. According to Cohen (1988), this is a large effect ($R^2=.430$). Zero-order correlations, semi-partial correlations and other values for this analysis are presented in table 21. Examination of these values again suggests that peer victimization is contributing more variance to the prediction PSTD symptomology when compared with sibling victimization.

Multiple Regression Results (IV: SEQ-SRS, original and SEQ-SRP, original; DV: TSCC, adapted)

A final simultaneous equation multiple regression analysis was conducted to determine the amount of variance sibling victimization and peer victimization contribute to PTSD symptomology, this time using the original measures. Sibling victimization and peer victimization again significantly predicted PTSD symptomology, $F(2, 214) = 64.91$, $p=.000$ ($\alpha < .05$). The adjusted R squared value was .372. This indicates that 37.2% of the variance in PTSD symptomology was explained by the combination of sibling and peer victimization. According to Cohen (1988), this is a large effect ($R^2=.38$). Zero-order correlations, semi-partial correlations and other values for this analysis are presented in table 22. As previously found, examination of these values suggests that peer victimization contributes more variance in the prediction of PSTD symptomology when compared to sibling victimization. A discussion of the results is presented in the following chapter.

CHAPTER V

DISCUSSION

Findings and Interpretation

A summary and interpretation of the major findings of the study are presented in this chapter. First, the discussion of results related to each research question is presented. Second, the limitations of this study are presented. Then, the implications of the study are explored. Finally, the suggestions for future avenues of research pertaining to this study are presented.

Research Questions One and Two

The prevalence of both sibling and peer victimization was explored utilizing all four of the SEQ-SR measures (sibling, peer; adapted, original). It was hypothesized that prevalence rates for sibling victimization would fall within the 20% range for the sample, as was reported by the Duncan (1999a) study. Further, it was expected for peer victimization to fall within the 30% range for the sample, as reported by Nansel et al.

Prevalence results for sibling victimization as measured by the SEQ-SRS (adapted) indicated that 19.40% of students reported having been victimized by a sibling; prevalence rates as measured by the SEQ-SRS (original) indicated 18.53% of students

reported victimization by a sibling. This indicates that the difference between prevalence rates for sibling victimization were negligible for the two different measures. Further, these numbers support the hypothesis, and are comparable with those reported by Duncan (1999a).

Prevalence results for peer victimization as measured by both the SEQ-SRP (adapted) and SEQ-SRP (original) showed that 16.53% of students reported having been victimized by a peer. This is much lower than the 30% prevalence rate that was reported by the Nansel et al. (2001) study, and therefore does not support the hypothesis; though a prevalence rate of 16.53% still indicates a significant amount of students were experiencing victimization by their peers.

Comparable prevalence rates for each of the different measures (adapted and original, respectively) indicate that the addition of new items did not seem to alter the prevalence rates for either type of victimization. This suggests that the addition of items to the original SEQ measures did not impact prevalence rates of peer and sibling victimization. The purpose of the additional items was to attempt to capture verbal aggression as a component of peer and sibling victimization, but as factor analysis results showed, this seemed to confuse the structure that was found within the original SEQ measure. This may indicate that utilizing the original measure that measures overt and relational types of peer and sibling victimization is most appropriate due to the clean factor structure. This is further supported in that the results of the factor analysis for both the SEQ-SRS (original) and SEQ-SRP (original) were generally consistent with those reported by Crick & Grotpeter (1995). This suggests that it may be more salient to

measure victimization looking at two factors (overt and relational) as opposed to three (physical, verbal, relational).

Research Questions Three and Four

Research questions three and four examined some of the variables that were shown to have a relationship with the different types of victimization. It was hypothesized that boys would experience more physical sibling and peer victimization and that girls would experience more relational sibling and peer victimization. There were no differences expected for the verbal type of victimization. Further, it was hypothesized that non-firstborn students would experience higher levels of sibling victimization than firstborn students.

When examining sibling victimization and gender with the SEQ-SRS (adapted) and SEQ-SRP (adapted) measure results indicated that females are experiencing higher rates of sibling victimization for all three types than males, and are experiencing higher levels of relational peer victimization than males. These findings suggest that the hypothesis was supported when looking at relational victimization; however, it was not found that males were experiencing more physical victimization. Further, results indicated that females were experiencing higher rates of the verbal type of sibling victimization, which was unexpected.

Data utilizing the SEQ-SRS (original) measure found comparable results with the adapted measure, wherein female students were shown to experience greater rates of sibling and peer victimization by the relational type. Again, for sibling victimization, it was also found that females are experiencing greater levels of overt victimization, as they

were experiencing greater rates of physical/verbal victimization when measured by the SEQ-SRS (adapted).

The literature that has examined gender and peer victimization has shown in some cases that there tends to be a difference in what type of victimization that males and females experience; however, the literature shows contradicting results. Results of this study are interesting in that it appears that gender differences for sibling victimization may not be consistent with those found when studying peer victimization. Overall, when examining the literature and the relationship between gender and peer victimization, it seems that there are no overall consistent patterns and that both males and females are susceptible to multiple forms of both sibling and peer victimization.

The examination of the results for birth order did not support the hypothesis. No significant results were found for birth order placement on sibling victimization, indicating that first-born siblings were just as likely to experience sibling victimization as non first born siblings. This is surprising, as it was assumed that first born students would experience less victimization than their younger siblings. Martin & Ross (1995) stated that the relationship between birth order and the sibling relationship is highly important and that older children tend to have more power over their younger siblings, and that aggression by older siblings is more potent. However, with regard to the students of this study, birth order seemed to have no impact on the identity of the victim of sibling bullying.

Research Question Five

Research question five examined the relationship between sibling victimization and peer victimization. As with all analyses, results were explored looking at both SEQ-SRS (adapted and original) and SEQ-SRP (adapted and original). Results were significant for both analyses, indicating a relationship between sibling and peer victimization. It is interesting to note that the results for the analysis using the adapted measures had a greater effect size than those for the analysis utilizing the original measures. This may be occurring due to the greater number of items on the adapted measures than on the original measures.

This finding is significant in that it highlights a connection between sibling victimization and peer victimization. The nature of the study does not allow for an assumption of directionality; that being said, it is of great significance that there is a connection between the two different types of victimization. Recent research has highlighted a shift in examining peer victimization from a developmental ecological systems framework, based on the work of Bronfenbrenner (1986). Bronfenbrenner suggests that a child's behavior is impacted by individual biological characteristics, as well as family, school, community and culture. This framework and the importance of examining student behavior from multiple ecologies is supported by Leff (2007); Espelage & Swearer (2003), Swearer & Espelage (2004) and Swearer & Doll (2001). The current study, in a sense, addressed multiple perspectives in its examination of both sibling and peer victimization, thus exploring behavior in both the school and family environments; however, it did not comprehensively examine information from all areas, as suggested by an ecological framework (i.e. gathering information from multiple informants and multiple sources, etc). This is due in part to the nature and purpose of the

study, and is presented as a limitation of the current study. Conducting research on peer and sibling victimization from this framework is of great interest, and is presented as a future direction of study in the subsequent section.

Research Questions Six – Eight

The final three research questions examined sibling and peer victimization and subsequent PTSD symptomology in those students who experienced these types of victimization. In order to examine these questions, four separate analyses were conducted, utilizing the adapted and original SEQ-SRS and SEQ-SRP measures and both PTSD measures (OSU-PTSD and TSCC). For all analyses, results were significant with large effect sizes, indicating that both sibling and peer victimization are predictive of PTSD symptomology. Further, examination of the results indicate that the combination of sibling and peer victimization contribute more variance to PTSD symptomology than either in isolation. Each of these findings supports the stated hypotheses of the study. Additionally, for all analyses, it appears that peer victimization is contributing more variance to the prediction of PTSD symptomology that sibling victimization. These results support Storch & Esposito's (2000) findings that also showed a relationship between peer victimization and PTSD symptomology. Further, they establish that sibling victimization can contribute to this significant outcome. A recent literature search indicated that several dissertation studies have examined peer victimization and PTSD symptomology, and all report findings consistent with this study (Burril, 2006; Kay, 2006; Tabori, 2007; Rosser, 2002 & Snook, 2001). The current study is unique from the previously mentioned studies due to the examination of sibling victimization along with

peer victimization. That sibling and peer victimization can be shown to have a relationship with PTSD symptomology is very important and both reinforces the previously established negative outcomes of peer victimization as well as highlights important implications for addressing bullying and victimization in the schools. Additionally, these findings support the idea of chronic trauma as a precipitating factor for the development of PTSD symptomology which holds diagnostic implications that need to be further addressed.

Summary of Main Findings

- Hypothesized prevalence rates for sibling victimization were found; prevalence rates for peer victimization were lower than expected.
- Results for gender were mixed and indicate that both boys and girls are susceptible to multiple types of victimization by both siblings and peers.
- Birth order results showed no significant differences for rates of sibling victimization for first born students vs. non-first born students.
- Sibling victimization is related to of peer victimization.
- Sibling and peer victimization were shown to contribute significantly to subsequent PTSD symptomology.
- Peer victimization seems to contribute more variance to resulting PTSD symptomology than that of sibling victimization.

Limitations

Several limitations can be discussed with regard to this study. First, the participants of this study came from two rural middle schools in Texas and Oklahoma. The rural population of the sample and relatively low sample size make it unrealistic to

be able to generalize the result of this study to other schools, particularly those students in more urban and suburban school districts.

Secondly, the measures utilized for sibling and peer victimization could be considered limitations. Factor analysis results for the SEQ-SRS and SEQ-SRP adapted measures did not show the three factor model that was expected. In light of this, research questions that were interested in looking at the three different types of sibling and peer victimization (physical, verbal, relational) need to be interpreted with caution, as this measure does not indicate a structure that provides good psychometric properties. Factor analysis results for each measure utilizing the original items were consistent with the original authors', indicating that the analyses with the original scales are psychometrically stable and thus more interpretable. However, the original measure items do not capture overt verbal forms of sibling and peer victimization, which is a limitation when looking at the results of the study.

Additionally with regard to the assessment of peer (and sibling) victimization, the shift towards an ecological framework of examination was previously mentioned. This study only collected information regarding peer and sibling victimization through self-report measures. Current research suggests that while self-report measures are useful, collecting data from multiple sources and using multiple methodologies (peer nomination, observation, teacher report) will be more salient when examining bullying problems at schools and in developing subsequent intervention strategies (Card & Hodges, 2008). Card & Hodge also recommend that practitioners in schools should utilize established measures of peer victimization in the schools, suggesting that most existing scales have been utilized only for research purposes (such as the SEQ) which

presents another limitation of the current study and limits the ability to generalize the assessment measures of this study for school-based assessment and intervention development.

Results examining the relationship between peer and sibling victimization were significant, as well as their relationship with PTSD symptomology. However, due to the nature of the study, it is not possible to establish the directionality of these relationships. This indicates that while there is a significant relationship between all of these factors, that it cannot be assumed that there is a directional nature (i.e. it cannot be stated that sibling victimization comes before peer victimization, or that peer victimization necessarily precedes PTSD symptomology). Additionally, while students were directed to answer PTSD questionnaires with regard to sibling and peer victimization experiences, it cannot not be stated with certainty that a student who indicated high levels of PTSD symptomology had not experienced some other traumatic event in his/her past that could have impacted those responses; thus, directionality cannot necessarily be established, as PTSD symptomology could precede sibling/peer victimization.

These limitations must be taken into consideration when interpreting the results of the study. It is important to understand the limitations, as they provide great direction for future research in this area.

Implications

The results of this study further establish sibling and peer victimization as significant problems as well as links these forms of victimization to symptoms associated with PTSD. Due to these findings, several important implications can be taken from the

current study. First, these results establish the importance of routinely assessing bullying and victimization in the schools so that victims can be identified. Second, identified victims should be broadly assessed for possible symptomology associated with victimization, specifically with regard to established internalizing problems such as anxiety and depression often associated with victimization. Further, the results of the current study suggest that this type of screening should be extended to explore possible PTSD symptomology. Finally, the results of this study support the importance of examining not just bully victimization in the schools but also within the context of sibling victimization that may be occurring at home. This holds implications for intervention not only at the school and individual level but also at the family level and can be of great use to practitioners in the schools.

Suggestions for Future Research

The findings of the current study are important and suggest multiple avenues for future research. As sibling victimization was established as a serious consideration in this study, it was examined at a very broad level. Exploring family structure, sibling gender match and other variables that may impact the occurrence of sibling victimization will be important for establishing patterns of this type of victimization. Further examining family constellations and possible victimization in multiple environments will be important in establishing sibling victimization as a contributing factor to student outcomes as well as student susceptibility to peer victimization at school. Also, the examination of multiple environmental factors, such as exposure to community violence, and other forms of family violence and abuse can be conducted to shed light on patterns

of victimization and will be invaluable to examining bullying/victimization in a social-ecological context (Holt et al. 2007). Future study in these areas as well are of vital importance in both understanding these issues as well as more and more informing the most appropriate methods for prevention and intervention of bullying behaviors in the schools.

Conclusion

This study both extends the current literature that examines sibling and peer victimization as well as contributes important findings regarding the relationship between sibling and peer victimization and the subsequent occurrence of PTSD symptomology within these victims. This is of great importance for schools and those practitioners who are working with victims of bullying. Bullying/victimization is a pervasive problem within schools throughout the world, and research conducted in this area is vital so that appropriate prevention and intervention programs can be both developed and implemented effectively, so that all students are able to go to school and develop both socially and academically devoid of the threat of victimization.

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TABLES

Table 1

Research Design Chart

IV	Measure(s)	DV	Measure(s)	Analysis
RQ1: Prevalence of SV	SEQ-SRS (adapted) SEQ-SRS (original)	N/A	N/A	Average scaled scores; sample mean; individual score 1 or more SD above sample mean indicates SV.
RQ2: Prevalence of PV	SEQ-SRP (adapted) SEQ-SRP (original)	N/A	N/A	Average scaled scores; sample mean; individual score 1 or more SD above sample mean indicates SV.
RQ3: Gender	male or female	SV PV	SEQ-SRS (adapted; orig.) SEQ-SRP (adapted; orig)	Factorial MANOVA
RQ4: Birth Order	1st; 2nd-6th.	SV	SEQ-SRS (adapted; orig.)	Factorial ANOVA
RQ5: SV	SEQ-SRS (adapted) SEQ-SRS (original)	PV	SEQ-SR (adapted)	Regression
RQ6, RQ7, RQ8: SV; PV	SEQ-SRS (adapt; ori) SEQ-SRP (adapt; ori)	PTSD	OSU PTSD Scale (adapted)	Multiple Regression
RQ6, RQ7, RQ8: SV; PV	SEQ-SRS (adapt; ori) SEQ-SRP (adapt; ori)	PTSD	TSCC (adapted)	Multiple Regression

Table 2

Demographic Characteristics of Sample (N=244)

Characteristic	Frequency	Percent
Child Gender (n=243)		
Male	134	55.1
Female	109	44.9
Child Grade (n=242)		
Fifth	51	21.1
Sixth	73	30.2
Seventh	89	36.8
Eighth	29	12.0
Child Age (n=242)		
Ten	36	14.9
Eleven	69	28.5
Twelve	74	30.6
Thirteen	52	21.5
Fourteen	11	4.5
Child Ethnicity (n=233)		
European American (White)	205	87.6
Native American	11	4.7
African American	4	1.7
Asian	3	1.3
Hispanic	11	4.7
Birth Order Position (n=230)		
First	106	46.1
Second	74	32.2
Third	38	16.5
Fourth	7	2.9
Fifth	2	0.9
Sixth	3	1.3

Table 2, Continued

Demographic Characteristics of Sample (N=244)

Characteristic	Frequency	Percent
Education Level of Parent (n=233)		
Some High School	6	2.6
High School Graduate	37	15.9
GED	5	2.1
Technical School	21	9.0
College (1 year)	54	23.2
College (2 year)	26	11.2
College (3 year)	7	3.0
College (4 year)	52	22.3
Graduate School	25	10.7

Table 3

Item Level Analysis: SEQ-SRS (N=244)

Item	Frequency	Percent	Mean	SD	SEM
1-How often do you get hit by a bro/sis at home? (n=233)			2.3820	1.2949	0.0848
Never	82	35.2			
Almost Never	45	19.3			
Sometimes	61	26.2			
Almost All the Time	25	10.7			
All the Time	20	8.60			
2-How often does your bro/sis leave you out on purpose when it is time to play or do an activity? (n=232)			1.9871	1.2535	0.0823
Never	121	52.2			
Almost Never	42	18.1			
Sometimes	33	14.2			
Almost All the Time	23	9.90			
All the Time	13	5.60			
3-How often does your bro/sis yell at you at home? (n=231)			2.7229	1.3582	0.0894
Never	60	26.0			
Almost Never	41	17.7			
Sometimes	65	28.1			
Almost All the Time	33	14.3			
All the Time	32	13.9			
4-How often does a bro/sis who is mad at you try to get back at you by not letting you be in their group anymore? (n=232)			1.9698	1.2973	0.0852
Never	127	54.7			
Almost Never	37	15.9			
Sometimes	35	15.1			
Almost All the Time	14	6.00			
All the Time	19	8.20			

Table 3, Continued

Item Level Analysis: SEQ-SRS (N=244)

Item	Frequency	Percent	Mean	SD	SEM
5-How often do you get pushed by your bro/sis at home? (n=232)			2.2759	1.3393	0.0879
Never	96	41.4			
Almost Never	44	19.0			
Sometimes	44	19.0			
Almost All the Time	28	12.1			
All the Time	20	8.60			
6-How often does your bro/sis tell you that you are stupid? (n=232)			2.6164	1.5102	0.0991
Never	83	35.8			
Almost Never	35	15.1			
Sometimes	43	18.5			
Almost All the Time	30	12.9			
All the Time	41	17.7			
7-How often does a bro/sis tell lies about you to make other kids not like you anymore? (n=232)			1.8319	1.3199	0.0867
Never	149	64.2			
Almost Never	28	12.1			
Sometimes	20	8.60			
Almost All the Time	15	6.50			
All the Time	20	8.60			
8-How often does your bro/sis tell you that something bad will happen if you do not do what they say? (n=229)			1.7074	1.1536	0.0762
Never	149	65.1			
Almost Never	33	14.4			
Sometimes	23	10.0			
Almost All the Time	13	5.70			
All the Time	11	4.80			

Table 3, Continued

Item Level Analysis: SEQ-SRS (N=244)

Item	Frequency	Percent	Mean	SD	SEM
9-How often does your bro/sis kick you at home? (n=230)			2.1174	1.2879	0.0849
Never	109	47.4			
Almost Never	38	16.5			
Sometimes	46	20.0			
Almost All the Time	21	9.10			
All the Time	16	7.00			
10-How often does your bro/sis say they won't like you unless you do what they want you to do? (n=231)			1.6970	1.1398	0.0750
Never	150	64.9			
Almost Never	33	14.3			
Sometimes	29	12.6			
Almost All the Time	6	2.60			
All the Time	13	5.60			
11-How often do you get teased by your bro/sis at home? (n=230)			2.4261	1.3991	0.0922
Never	84	36.5			
Almost Never	47	20.4			
Sometimes	45	19.6			
Almost All the Time	25	10.9			
All the Time	29	12.6			
12-How often does your bro/sis pull your hair? (n=230)			1.7609	1.1929	0.0786
Never	143	62.2			
Almost Never	39	17.0			
Sometimes	22	9.60			
Almost All the Time	12	5.20			
All the Time	14	6.10			

Table 3, Continued

Item Level Analysis: SEQ-SRS (N=244)

Item	Frequency	Percent	Mean	SD	SEM
13-How often does your bro/sis try to keep others from liking you by saying mean things about you? (n=231)			1.6364	1.1674	0.0768
Never	163	70.6			
Almost Never	26	11.3			
Sometimes	19	8.20			
Almost All the Time	9	3.90			
All the Time	14	6.10			
14-How often does your bro/sis say they will beat you up if you don't do what they want you to do? (n=229)			1.6026	1.0778	0.0712
Never	159	69.4			
Almost Never	30	13.1			
Sometimes	21	9.20			
Almost All the Time	10	4.40			
All the Time	9	3.90			
15-How often do you get shoved by your bro/sis at home? (n=231)			2.0866	1.2446	0.0819
Never	105	45.5			
Almost Never	52	22.5			
Sometimes	36	15.6			
Almost All the Time	25	10.8			
All the Time	13	5.60			
16-How often does your bro/sis at home call you mean names? (n=230)			2.4478	1.4125	0.0931
Never	85	37.0			
Almost Never	43	18.7			
Sometimes	45	19.6			
Almost All the Time	28	12.2			
All the Time	29	12.6			

Table 3, Continued

Item Level Analysis: SEQ-SRS (N=244)

Item	Frequency	Percent	Mean	SD	SEM
17-How often does your bro/sis steal your belongings? (n=231)			2.2338	1.3758	0.0905
Never	101	43.7			
Almost Never	47	20.3			
Sometimes	35	15.2			
Almost All the Time	24	10.4			
All the Time	24	10.4			
18-How often does your bro/sis tell stories about you? (n=231)			1.8701	1.2088	0.0795
Never	133	57.6			
Almost Never	37	16.0			
Sometimes	29	12.6			
Almost All the Time	22	9.50			
All the Time	10	4.30			
19-How often does your bro/sis curse at you? (n=231)			1.6580	1.1033	0.0726
Never	155	67.1			
Almost Never	29	12.6			
Sometimes	27	11.7			
Almost All the Time	11	4.80			
All the Time	9	3.90			
20-How often does your bro/sis damage your belongings? (n=230)			2.0261	1.2708	0.0838
Never	114	49.6			
Almost Never	48	20.9			
Sometimes	32	13.9			
Almost All the Time	20	8.70			
All the Time	16	7.00			

Table 3, Continued

Item Level Analysis: SEQ-SRS (N=244)

Item	Frequency	Percent	Mean	SD	SEM
21-How often have you had to do something you didn't want to do because your bro/sis threatened you? (n=229)			1.5240	0.9713	0.0642
Never	164	71.6			
Almost Never	29	12.7			
Sometimes	22	9.60			
Almost All the Time	9	3.90			
All the Time	5	2.20			
22-How often have you had to do something you didn't want to do because your bro/sis hit you? (n=230)			1.5000	0.9519	0.0628
Never	169	73.5			
Almost Never	24	10.4			
Sometimes	24	10.4			
Almost All the Time	9	3.90			
All the Time	4	1.70			
23-How often have you had to do something you didn't want to do because your bro/sis spread rumors about you? (n=230)			1.3913	0.0627	0.9502
Never	187	81.3			
Almost Never	18	7.80			
Sometimes	10	4.30			
Almost All the Time	8	3.50			
All the Time	7	3.00			

Table 4

Item Level Analysis: SEQ-SRP (N=244)

Item	Frequency	Percent	Mean	SD	SEM
1-How often do you get hit by another kid at school? (n=243)			1.8230	1.0353	0.0664
Never	124	51.0			
Almost Never	62	25.5			
Sometimes	40	16.5			
Almost All the Time	10	4.10			
All the Time	7	2.90			
2-How often do other kids leave you out on purpose when it is time to play or do an activity? (n=243)			2.0782	1.2120	0.0777
Never	112	46.1			
Almost Never	44	18.1			
Sometimes	56	23.0			
Almost All the Time	18	7.40			
All the Time	13	5.30			
3-How often does another kid yell at you at school? (n=242)			2.1942	1.1628	0.0747
Never	90	37.2			
Almost Never	58	24.0			
Sometimes	62	25.6			
Almost All the Time	21	8.70			
All the Time	11	4.50			
4-How often does a kid who is mad at you try to get back at you by not letting you be in their group anymore? (n=243)			2.1235	1.1997	0.0770
Never	105	43.2			
Almost Never	48	19.8			
Sometimes	56	23.0			
Almost All the Time	23	9.50			
All the Time	11	4.50			

Table 4, Continued

Item Level Analysis: SEQ-SRP (N=244)

Item	Frequency	Percent	Mean	SD	SEM
5-How often do you get pushed by another kid at school? (n=243)			2.2593	1.2376	0.0794
Never	89	36.6			
Almost Never	61	25.1			
Sometimes	48	19.8			
Almost All the Time	31	12.8			
All the Time	14	5.80			
6-How often does a classmate tell you that you are stupid? (n=243)			2.4691	1.2897	0.0827
Never	77	31.7			
Almost Never	46	18.9			
Sometimes	72	29.6			
Almost All the Time	25	10.3			
All the Time	23	9.50			
7-How often does a classmate tell lies about you to make other kids not like you anymore? (n=243)			2.3704	1.3525	0.0868
Never	90	37.0			
Almost Never	52	21.4			
Sometimes	46	18.9			
Almost All the Time	31	12.8			
All the Time	24	9.90			
8-How often does a classmate tell you that something bad will happen if you do not do what they say? (n=242)			1.7066	1.1123	0.0715
Never	151	62.4			
Almost Never	44	18.2			
Sometimes	25	10.3			
Almost All the Time	11	4.50			
All the Time	11	4.50			

Table 4, Continued

Item Level Analysis: SEQ-SRP (N=244)

Item	Frequency	Percent	Mean	SD	SEM
9-How often does another kid kick you at school? (n=243)			1.6831	1.0257	0.0658
Never	148	60.9			
Almost Never	46	18.9			
Sometimes	35	14.4			
Almost All the Time	6	2.50			
All the Time	8	3.30			
10-How often does another kid say they won't like you unless you do what they want you to do? (n=242)			1.7273	1.0970	0.0705
Never	146	60.3			
Almost Never	45	18.6			
Sometimes	34	14.0			
Almost All the Time	5	2.10			
All the Time	12	5.00			
11-How often do you get teased by another kid at school? (n=242)			2.4091	1.2631	0.0812
Never	72	29.8			
Almost Never	70	28.9			
Sometimes	49	20.2			
Almost All the Time	31	12.8			
All the Time	20	8.30			
12-How often does another kid pull your hair? (n=242)			1.5248	1.0028	0.0645
Never	172	71.1			
Almost Never	38	15.7			
Sometimes	16	6.60			
Almost All the Time	7	2.90			
All the Time	9	3.70			

Table 4, Continued

Item Level Analysis: SEQ-SRP (N=244)

Item	Frequency	Percent	Mean	SD	SEM
13-How often does a kid try to keep others from liking you by saying mean things about you? (n=242)			2.1653	1.3160	0.0846
Never	106	43.8			
Almost Never	54	22.3			
Sometimes	40	16.5			
Almost All the Time	20	8.30			
All the Time	22	9.10			
14-How often does another kid say they will beat you up if you don't do what they want you to do? (n=241)			1.5685	0.9982	0.0643
Never	168	69.7			
Almost Never	30	12.4			
Sometimes	27	11.2			
Almost All the Time	11	4.60			
All the Time	5	2.10			
15-How often do you get shoved by another kid at school? (n=242)			2.0620	1.1488	0.0738
Never	102	42.1			
Almost Never	64	26.4			
Sometimes	44	18.2			
Almost All the Time	23	9.50			
All the Time	9	3.70			
16-How often does another kid at school call you mean names? (n=241)			2.2905	1.2242	0.0789
Never	83	34.4			
Almost Never	61	25.3			
Sometimes	57	23.7			
Almost All the Time	24	10.0			
All the Time	18	6.60			

Table 4, Continued

Item Level Analysis: SEQ-SRP (N=244)

Item	Frequency	Percent	Mean	SD	SEM
17-How often does another kid at school steal your belongings? (n=242)			1.9050	1.0871	0.0699
Never	115	47.5			
Almost Never	66	27.3			
Sometimes	39	16.1			
Almost All the Time	13	5.40			
All the Time	9	3.70			
18-How often does another kid tell stories about you? (n=242)			2.0207	1.2670	0.0814
Never	120	49.6			
Almost Never	52	21.5			
Sometimes	31	12.8			
Almost All the Time	23	9.50			
All the Time	16	6.60			
19-How often does another kid curse at you? (n=242)			2.0083	1.1912	0.0766
Never	113	46.7			
Almost Never	59	24.4			
Sometimes	37	15.3			
Almost All the Time	21	8.70			
All the Time	12	5.00			
20-How often does another kid damage your belongings? (n=242)			1.7438	1.0548	0.0678
Never	136	56.2			
Almost Never	60	24.8			
Sometimes	27	11.2			
Almost All the Time	10	4.10			
All the Time	9	3.70			

Table 4, Continued

Item Level Analysis: SEQ-SRP (N=244)

Item	Frequency	Percent	Mean	SD	SEM
21-How often have you had to do something you didn't want to do because another kid threatened you? (n=241)			1.5477	0.9611	0.0619
Never	167	69.3			
Almost Never	35	14.5			
Sometimes	24	10.0			
Almost All the Time	11	4.60			
All the Time	4	1.70			
22-How often have you had to do something you didn't want to do because another kid hit you? (n=242)			1.4669	0.9603	0.0617
Never	183	75.6			
Almost Never	26	10.7			
Sometimes	18	7.40			
Almost All the Time	9	3.70			
All the Time	6	2.50			
23-How often have you had to do something you didn't want to do because another kid spread rumors about you? (n=242)			1.7851	1.1610	0.0746
Never	142	58.7			
Almost Never	50	20.7			
Sometimes	22	9.10			
Almost All the Time	16	6.60			
All the Time	12	5.00			

Table 5

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
1-I get really very scared thinking about being bullied. (n=243)			0.5885	1.0302	0.0661
Never	162	66.7			
Sometimes	47	19.3			
Often	15	6.20			
Most of the Time	10	4.10			
Always	9	3.70			
2-I felt like I couldn't help myself when I was being bullied. (n=243)			0.8313	1.2433	0.0798
Never	143	58.8			
Sometimes	50	20.6			
Often	14	5.80			
Most of the Time	20	8.20			
Always	16	6.60			
3-I pretend or play like I am being bullied again. (n=243)			0.1358	0.5083	0.0326
Never	222	91.4			
Sometimes	13	5.30			
Often	5	2.10			
Most of the Time	2	0.80			
Always	1	0.40			
4-I don't feel I will marry. (n=240)			0.4833	1.1277	0.0728
Never	190	79.2			
Sometimes	23	9.60			
Often	5	2.10			
Most of the Time	5	2.10			
Always	17	7.10			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
5-I feel like I'm being bullied again. (n=239)			0.6276	1.0959	0.0709
Never	160	66.9			
Sometimes	42	17.6			
Often	13	5.40			
Most of the Time	14	5.90			
Always	10	4.20			
6-I don't like to be away from my parents now. (n=242)			0.5785	1.0643	0.0684
Never	165	68.2			
Sometimes	46	19.0			
Often	11	4.50			
Most of the Time	8	3.30			
Always	12	5.00			
7-I am more jumpy (startle more easily) since being bullied. (n=242)			0.5248	1.0354	0.0666
Never	177	73.1			
Sometimes	31	12.8			
Often	15	6.20			
Most of the Time	10	4.10			
Always	9	3.70			
8-I don't feel like I will have children. (n=241)			0.4730	1.0686	0.0688
Never	185	76.8			
Sometimes	32	13.3			
Often	5	2.10			
Most of the Time	4	1.70			
Always	15	6.20			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
9-I have felt sick since I have been bullied. (n=242)			0.3843	0.9318	0.0599
Never	195	80.6			
Sometimes	23	9.50			
Often	10	4.10			
Most of the Time	6	2.50			
Always	8	3.30			
10-I feel like I would not have been bullied if I was a better person. (n=242)			0.5248	1.0591	0.0681
Never	177	73.1			
Sometimes	33	13.6			
Often	15	6.20			
Most of the Time	4	1.70			
Always	13	5.40			
11-I get upset when I see other kids being bullied. (n=241)			1.8050	1.5570	0.1003
Never	67	27.8			
Sometimes	60	24.9			
Often	25	10.4			
Most of the Time	31	12.9			
Always	58	24.1			
12-I cannot remember some important things about being bullied. (n=241)			0.5560	1.0518	0.0677
Never	170	70.5			
Sometimes	37	15.4			
Often	16	6.60			
Most of the Time	7	2.90			
Always	11	4.60			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
13-I have more bad dreams now than before I was bullied. (n=241)			0.4191	1.0659	0.0687
Never	198	82.2			
Sometimes	19	7.90			
Often	5	2.10			
Most of the Time	4	1.70			
Always	15	6.20			
14-I feel like the bullying is happening again sometimes. (n=237)			0.6329	1.1067	0.0719
Never	159	67.1			
Sometimes	40	16.9			
Often	15	6.30			
Most of the Time	12	5.10			
Always	11	4.60			
15-I get hyper when I have seen other kids being bullied. (n=241)			0.4772	1.1183	0.0720
Never	194	80.5			
Sometimes	17	7.10			
Often	6	2.50			
Most of the Time	10	4.10			
Always	14	5.80			
16-I don’t like to sleep alone when I’m thinking about being bullied. (n=242)			0.3471	0.9702	0.0624
Never	208	86.0			
Sometimes	10	4.10			
Often	8	3.30			
Most of the Time	6	2.50			
Always	10	4.10			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
17-I worry that I might die before I grow up. (n=242)			0.7066	1.2326	0.0792
Never	162	66.9			
Sometimes	38	15.7			
Often	11	4.50			
Most of the Time	13	5.40			
Always	18	7.40			
18-I get really very scared when I am being bullied. (n=240)			0.5833	1.1685	0.0754
Never	177	73.8			
Sometimes	26	10.8			
Often	14	5.80			
Most of the Time	6	2.50			
Always	17	7.10			
19-I shake when I think about being bullied. (n=241)			0.3320	0.8353	0.0538
Never	196	81.3			
Sometimes	26	10.8			
Often	9	3.70			
Most of the Time	4	1.70			
Always	6	2.50			
20-I dream about being bullied. (n=242)			0.3719	0.9076	0.0583
Never	196	81.0			
Sometimes	22	9.10			
Often	11	4.50			
Most of the Time	6	2.50			
Always	7	2.90			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
21-I get angry when I think about being bullied. (n=241)			0.9793	1.3978	0.0900
Never	134	55.6			
Sometimes	51	21.2			
Often	13	5.40			
Most of the Time	13	5.40			
Always	30	12.4			
22-I feel different from others since being bullied. (n=240)			0.6042	1.0577	0.0683
Never	164	68.3			
Sometimes	34	14.2			
Often	24	10.0			
Most of the Time	9	3.8			
Always	9	3.8			
23-I do not like to hear people talk about bullying. (n=241)			1.0788	1.4427	0.0929
Never	130	53.9			
Sometimes	43	17.8			
Often	17	7.10			
Most of the Time	21	8.70			
Always	30	12.4			
24-I shake when I have seen other kids being bullied. (n=240)			0.6208	1.1688	0.0754
Never	170	70.8			
Sometimes	31	12.9			
Often	15	6.20			
Most of the Time	8	3.30			
Always	16	6.70			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
25-Feelings about bullying cause trouble with my life. (n=242)			0.6116	0.8468	0.0547
Never	174	71.9			
Sometimes	26	10.7			
Often	18	7.40			
Most of the Time	10	4.10			
Always	14	5.80			
26-I am angry that no one stops the bullying. (n=240)			1.8167	1.5923	0.1028
Never	74	30.8			
Sometimes	47	19.6			
Often	28	11.7			
Most of the Time	31	12.9			
Always	60	25.0			
27-Since being bullied, I worry something might happen again. (n=241)			0.7178	1.2497	0.0805
Never	164	68			
Sometimes	30	12.4			
Often	16	6.60			
Most of the Time	13	5.40			
Always	18	7.50			
28-I could have done something to stop being bullied. (n=242)			0.9835	1.3603	0.0874
Never	134	55.4			
Sometimes	44	18.2			
Often	23	9.50			
Most of the Time	16	6.60			
Always	25	10.3			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
29-Since being bullied, I worry I can't count on others to help me. (n=241)			0.4938	0.9795	0.0631
Never	173	71.8			
Sometimes	42	17.4			
Often	10	4.10			
Most of the Time	7	2.90			
Always	9	3.70			
30-It was my fault that I was bullied. (n=240)			0.3958	0.8468	0.0547
Never	183	76.2			
Sometimes	34	14.2			
Often	12	5.00			
Most of the Time	7	2.90			
Always	4	1.70			
31-I do not like to think about getting bullied. (n=240)			1.0042	1.4961	0.0966
Never	148	61.7			
Sometimes	26	10.8			
Often	19	7.90			
Most of the Time	11	4.60			
Always	36	15.0			
32-I can't stop thinking about being bullied. (n=237)			0.3713	0.8520	0.0553
Never	190	80.2			
Sometimes	20	8.40			
Often	16	6.80			
Most of the Time	8	3.40			
Always	3	1.30			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
33-Feelings about bullying make me feel bad. (n=240)			0.8458	1.2730	0.0822
Never	143	59.6			
Sometimes	44	18.3			
Often	19	7.90			
Most of the Time	15	6.20			
Always	19	7.90			
34-I am not interested in things I used to like since being bullied. (n=240)			0.4667	1.0544	0.0681
Never	189	78.8			
Sometimes	21	8.80			
Often	10	4.20			
Most of the Time	9	3.80			
Always	11	4.60			
35-I get upset like it is happening again when I hear people talk about bullying. (n=241)			0.4647	0.9353	0.0602
Never	178	73.9			
Sometimes	34	14.1			
Often	15	6.20			
Most of the Time	8	3.30			
Always	6	2.50			
36-I get upset like it is happening again when I see things about bullying on TV. (n=241)			0.4938	1.0883	0.0701
Never	188	78.0			
Sometimes	20	8.30			
Often	13	5.40			
Most of the Time	7	2.90			
Always	13	5.40			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
37-I feel like the bullying is a movie in my mind. (n=240)			0.4208	0.9429	0.0609
Never	188	78.3			
Sometimes	23	9.60			
Often	17	7.10			
Most of the Time	4	1.0			
Always	8	3.30			
38-I get angry about being bullied. (n=241)			1.1120	1.5384	0.0991
Never	138	57.3			
Sometimes	32	13.3			
Often	17	7.10			
Most of the Time	14	5.80			
Always	40	16.6			
39-I have stomachaches since I have been bullied. (n=240)			0.4250	1.0443	0.0674
Never	197	82.1			
Sometimes	14	5.80			
Often	11	4.60			
Most of the Time	6	2.50			
Always	12	5.00			
40-I have trouble thinking since being bullied. (n=239)			0.4770	1.0644	0.0688
Never	189	79.1			
Sometimes	17	7.10			
Often	12	5.00			
Most of the Time	1	4.60			
Always	10	4.20			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
41-I try and not go places that make me think about being bullied. (n=240)			0.5458	1.0891	0.0703
Never	177	73.8			
Sometimes	28	11.7			
Often	13	5.40			
Most of the Time	11	4.60			
Always	11	4.60			
42-I get angry when I have seen other kids being bullied. (n=240)			1.5042	1.5923	0.1028
Never	99	41.2			
Sometimes	44	18.3			
Often	25	10.4			
Most of the Time	21	8.80			
Always	51	21.2			
43-I miss school because of bullying. (n=238)			0.2059	0.6525	0.0423
Never	209	87.8			
Sometimes	17	7.10			
Often	7	2.90			
Most of the Time	2	0.80			
Always	3	1.30			
44-I worry about bullying. (n=238)			0.8109	1.2967	0.0840
Never	150	63.0			
Sometimes	37	15.5			
Often	19	8.00			
Most of the Time	10	4.20			
Always	22	9.20			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
45-I worry that I will be humiliated or embarrassed. (n=237)			1.0000	1.4350	0.0932
Never	135	57.0			
Sometimes	44	18.6			
Often	12	5.10			
Most of the Time	15	6.30			
Always	31	13.1			
46-I stay away from home because of bullying. (n=237)			0.1983	0.7001	0.0455
Never	214	90.3			
Sometimes	10	4.20			
Often	6	2.50			
Most of the Time	3	1.30			
Always	4	1.70			
47-I worry that I will get hurt. (n=138)			0.8824	1.3605	0.0882
Never	147	61.8			
Sometimes	36	1.51			
Often	15	6.30			
Most of the Time	16	6.70			
Always	24	10.1			
48-I worry about the future now. (n=240)			0.8208	1.3086	0.0845
Never	153	63.8			
Sometimes	32	13.3			
Often	22	9.20			
Most of the Time	11	4.60			
Always	22	9.20			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
49-I get angry more since being bullied. (n=241)			0.7012	1.2690	0.0817
Never	167	69.3			
Sometimes	31	12.9			
Often	12	5.00			
Most of the Time	10	4.10			
Always	21	8.70			
50-I get hyper when I think about being bullied. (n=241)			0.3444	0.9046	0.0583
Never	201	83.4			
Sometimes	17	7.10			
Often	11	4.60			
Most of the Time	4	1.70			
Always	8	3.30			
51-Sometimes, things do not feel real. (n=240)			0.6125	1.0124	0.0653
Never	155	64.6			
Sometimes	47	19.6			
Often	22	9.20			
Most of the Time	8	3.30			
Always	8	3.30			
52-I avoid places where I've been bullied. (n=241)			0.4647	1.0286	0.0663
Never	188	78.0			
Sometimes	23	9.50			
Often	10	4.10			
Most of the Time	11	4.60			
Always	9	3.70			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
53-Have more trouble with adults than I used to. (n=239)			0.4100	0.9208	0.0596
Never	188	78.7			
Sometimes	23	9.60			
Often	15	6.30			
Most of the Time	7	2.90			
Always	6	2.50			
54-I have trouble concentrating since I was bullied. (n=238)			0.4454	0.9652	0.0626
Never	185	77.7			
Sometimes	22	9.20			
Often	15	6.30			
Most of the Time	10	4.20			
Always	6	2.50			
55-Since being bullied, I do risky things that might get me hurt. (n=241)			0.4855	1.0169	0.0655
Never	183	75.9			
Sometimes	26	10.8			
Often	13	5.40			
Most of the Time	11	4.60			
Always	8	3.30			
56-I don't like to sleep alone when I have seen other kids being bullied. (n=241)			0.2988	0.8575	0.0552
Never	207	85.9			
Sometimes	14	5.80			
Often	9	3.70			
Most of the Time	4	1.70			
Always	7	2.90			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
57-I used to think the world was a safe place. (n=241)			1.0332	1.4197	0.0914
Never	134	55.6			
Sometimes	38	15.8			
Often	27	11.2			
Most of the Time	11	4.60			
Always	31	12.9			
58-I watch out for bad things since being bullied. I am very alert. (n=240)			0.9292	1.3441	0.0868
Never	140	58.3			
Sometimes	39	16.2			
Often	22	9.20			
Most of the Time	16	6.70			
Always	23	9.60			
59-I think I have lost control of my feelings. (n=241)			0.4855	0.9794	0.0631
Never	180	74.7			
Sometimes	27	11.2			
Often	19	7.90			
Most of the Time	8	3.30			
Always	7	2.90			
60-Since being bullied, I don't like to be away from the people who keep me safe. (n=240)			0.6333	1.1781	0.0761
Never	173	72.1			
Sometimes	22	9.20			
Often	18	7.50			
Most of the Time	14	5.80			
Always	13	5.40			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
61-I have trouble organizing my schedule since I was bullied. (n=241)			0.3983	0.9911	0.0638
Never	198	82.2			
Sometimes	17	7.10			
Often	8	3.30			
Most of the Time	9	3.70			
Always	9	3.70			
62-Have more trouble with family than I used to. (n=240)			0.5500	1.1304	0.0730
Never	184	76.7			
Sometimes	16	6.70			
Often	15	6.20			
Most of the Time	14	5.80			
Always	11	4.60			
63-I have had trouble staying asleep since being bullied. (n=240)			0.4167	1.0275	0.0663
Never	198	82.5			
Sometimes	12	5.00			
Often	13	5.40			
Most of the Time	6	2.50			
Always	11	4.60			
64-I have felt alone since I was bullied. (n=241)			0.4855	1.0332	0.0665
Never	186	77.2			
Sometimes	21	8.70			
Often	14	5.80			
Most of the Time	12	5.00			
Always	8	3.30			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
65-I have had trouble falling asleep since being bullied. (n=241)			0.4274	1.0586	0.0682
Never	199	82.6			
Sometimes	13	5.40			
Often	9	3.70			
Most of the Time	8	3.30			
Always	12	5.00			
66-When I think about being bullied, I have trouble sleeping. (n=240)			0.4208	0.9989	0.0645
Never	192	80.0			
Sometimes	21	8.80			
Often	12	5.00			
Most of the Time	4	1.70			
Always	11	4.60			
67-I don't trust others the way I used to. (n=240)			0.8667	1.3284	0.0857
Never	150	62.5			
Sometimes	31	12.9			
Often	20	8.30			
Most of the Time	19	7.90			
Always	20	8.30			
68-I used to think school was a safe place. (n=241)			0.9336	1.3798	0.0889
Never	145	60.2			
Sometimes	34	14.1			
Often	20	8.30			
Most of the Time	17	7.10			
Always	25	10.4			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
69-I have more problems with my friends since being bullied. (n=240)			0.5500	1.0889	0.0703
Never	175	72.9			
Sometimes	31	12.9			
Often	13	5.40			
Most of the Time	9	3.80			
Always	12	5.00			
70-I have headaches since I have been bullied. (n=240)			0.4875	1.0349	0.0668
Never	183	76.2			
Sometimes	24	10.0			
Often	17	7.10			
Most of the Time	5	2.10			
Always	11	4.60			
71-I don't feel anything. (n=240)			0.6500	1.2718	0.0821
Never	174	72.5			
Sometimes	29	12.1			
Often	7	2.90			
Most of the Time	7	2.90			
Always	23	9.60			
72-Have more trouble with other kids than I used to. (n=236)			0.5890	1.1395	0.0742
Never	171	72.5			
Sometimes	27	11.4			
Often	16	6.80			
Most of the Time	8	3.40			
Always	14	5.90			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
73-I try and not see people that make me think about being bullied. (n=240)			0.5417	1.1121	0.0718
Never	180	75.0			
Sometimes	25	10.4			
Often	13	5.40			
Most of the Time	9	3.80			
Always	13	5.40			
74-Have a hard time getting excited about much since I was bullied. (n=240)			0.4958	1.0145	0.0655
Never	181	75.4			
Sometimes	26	10.8			
Often	12	5.00			
Most of the Time	15	6.20			
Always	6	2.50			
75-Since I was bullied, I don't feel like doing as much. (n=239)			0.3891	0.8716	0.0564
Never	188	78.7			
Sometimes	24	10.0			
Often	17	7.10			
Most of the Time	5	2.10			
Always	5	2.10			
76-I knew something bad was going to happen before being bullied. (n=240)			0.5292	1.0141	0.0655
Never	173	72.1			
Sometimes	33	13.8			
Often	15	6.20			
Most of the Time	12	5.00			
Always	7	2.90			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
77-I get upset easily. (n=237)			0.9494	1.4043	0.0912
Never	143	60.3			
Sometimes	31	13.1			
Often	23	9.70			
Most of the Time	12	51.0			
Always	28	11.8			
78-I feel guilty since being bullied. (n=233)			0.4249	0.9306	0.0610
Never	180	77.3			
Sometimes	27	11.6			
Often	12	5.20			
Most of the Time	8	3.40			
Always	6	2.60			
79-Sometimes I feel like I'm outside my body. (n=240)			0.6208	1.1544	0.0745
Never	170	70.8			
Sometimes	29	12.1			
Often	17	7.10			
Most of the Time	10	4.20			
Always	14	5.80			
80-I am more irritable or cranky with other people since I've been bullied. (n=239)			0.7155	1.2547	0.0812
Never	167	69.9			
Sometimes	22	9.20			
Often	16	6.70			
Most of the Time	19	7.90			
Always	15	6.30			

Table 5, Continued

Item Level Analysis: OSU PTSD Scale (N=244)

Item	Frequency	Percent	Mean	SD	SEM
81-I often talk about being bullied (several times a week). (n=239)			0.3222	0.8153	0.0527
Never	196	82.0			
Sometimes	23	9.60			
Often	11	4.60			
Most of the Time	4	1.70			
Always	5	2.10			
82-Feelings about bullying cause trouble with my schoolwork. (n=240)			0.5208	1.1569	0.0747
Never	190	79.2			
Sometimes	15	6.20			
Often	10	4.20			
Most of the Time	10	4.20			
Always	15	6.20			

Table 6

Item Level Analysis: TSCC (N=244)

Item	Frequency	Percent	Mean	SD	SEM
1-I have bad dreams or nightmares about being bullied. (n=235)			0.2979	0.6703	0.0437
Never	187	79.6			
Sometimes	32	13.6			
Lots of Times	10	4.30			
Almost all the Time	6	2.60			
2-Scary ideas or pictures just pop into my head. (n=236)			0.6653	0.9644	0.0628
Never	142	60.2			
Sometimes	51	21.6			
Lots of Times	23	9.70			
Almost all the time	20	8.50			
3-Remembering things that happened that I didn't like. (n=236)			0.8263	0.9804	0.0638
Never	114	48.3			
Sometimes	72	30.5			
Lots of Times	27	11.4			
Almost all the Time	23	9.70			
4-Going away in my mind, trying not to think about being bullied. (n=235)			0.5489	0.9156	0.0597
Never	159	67.7			
Sometimes	39	16.6			
Lots of Times	21	8.90			
Almost all the Time	16	6.80			

Table 6, Continued

Item Level Analysis: TSCC (N=244)

Item	Frequency	Percent	Mean	SD	SEM
5-Remembering scary things. (n=236)			0.6525	0.9925	0.0646
Never	149	63.1			
Sometimes	42	17.8			
Lots of Times	23	9.70			
Almost all the time	22	9.30			
6-Feeling scared of boys. (n=235)			0.3021	0.6842	0.0446
Never	187	79.6			
Sometimes	32	13.6			
Lots of Times	9	3.80			
Almost all the time	7	3.00			
7-Feeling scared of girls. (n=233)			0.2532	0.6567	0.0430
Never	195	83.7			
Sometimes	24	10.3			
Lots of Times	7	3.00			
Almost all the time	7	3.00			
8-Can't stop thinking about being bullied. (n=236)			0.3136	0.7287	0.0474
Never	190	80.5			
Sometimes	27	11.4			
Lots of Times	10	4.2			
Almost all the time	9	3.8			

Table 6, Continued

Item Level Analysis: TSCC (N=244)

Item	Frequency	Percent	Mean	SD	SEM
9-Remembering things I don't want to remember. (n=236)			0.6610	0.9337	0.0608
Never	138	58.5			
Sometimes	58	24.6			
Lots of Times	22	9.30			
Almost all the time	18	7.60			
10-Wishing that I was never bullied. (n=236)			0.8898	1.2154	0.0791
Never	141	59.7			
Sometimes	27	11.4			
Lots of Times	21	8.90			
Almost all the time	47	19.90			

Table 7

Correlations (adapted): SEQ-SRS (adapt), SEQ-SRP (adapt) OSU-PTSD (adapt) TSCC (adapt)

Measure	SEQSRS Total	SEQSRS Physical	SEQSRS Verbal	SEQSRS Relational
SEQSRS Total	1.00	.953**	.958**	.942**
SEQSRS Physical	.953**	1.00	.869**	.843**
SEQSRS Verbal	.958**	.869**	1.00	.859**
SEQSRS Relational	.942**	.843**	.859**	1.00
SEQSRP Total	.504**	.471**	.482**	.486**
SEQSRP Physical	.443**	.407**	.417**	.442**
SEQSRP Verbal	.468**	.429**	.457**	.449**
SEQSRP Relational	.494**	.473**	.467**	.470**
OSUPTSD Total	.509**	.491**	.478**	.482**
TSCC Total	.464**	.433**	.440**	.455**

** Correlation is significant at the 0.01 level (2-tailed).

Table 7, Continued

Correlations: SEQ-SRS (adapt), SEQ-SRP (adapt) OSU-PTSD (adapt) TSCC (adapt)

Measure	SEQSRP Total	SEQSRP Physical	SEQSRP Verbal	SEQSRP Relational
SEQSRS Total	.504**	.443**	.468**	.494**
SEQSRS Physical	.471**	.407**	.429**	.473**
SEQSRS Verbal	.482**	.417**	.457**	.467**
SEQSRS Relational	.486**	.442**	.449**	.470**
SEQSRP Total	1.00	.929**	.958**	.918**
SEQSRP Physical	.929**	1.00	.865**	.759**
SEQSRP Verbal	.958**	.865**	1.00	.831**
SEQSRP Relational	.918**	.759**	.831**	1.00
OSUPTSD Total	.693**	.628**	.629**	.690**
TSCC Total	.637**	.628**	.629**	.690**

** Correlation is significant at the 0.01 level (2-tailed).

Table 7, Continued

Correlations: SEQ-SRS (adapt), SEQ-SRP (adapt) OSU-PTSD (adapt) TSCC (adapt)

Measure	OSUPTSD Total	TSCC Total
SEQSRS Total	.509**	.464**
SEQSRS Physical	.491**	.433**
SEQSRS Verbal	..478**	.440**
SEQSRS Relational	.482**	.455**
SEQSRP Total	.693**	.637**
SEQSRP Physical	.628**	.562**
SEQSRP Verbal	.629**	.610**
SEQSRP Relational	.690**	.627**
OSUPTSD Total	1.00	.798**
TSCC Total	.798**	1.00

** Correlation is significant at the 0.01 level (2-tailed).

Table 8

Correlations (original): SEQ-SRS (orig), SEQ-SRP (orig) OSU-PTSD (orig) TSCC (adapt)

Measure	SEQSRS Total	SEQSRS Overt	SEQSRS Relational	SEQSRP Total
SEQSRS Total	1.00	.949**	.946**	.438**
SEQSRS Overt	.949**	1.00	.795**	.400**
SEQSRS Relational	.946**	.795**	1.00	.430**
SEQSRP Total	.438**	.400**	.430**	1.00
SEQSRP Overt	.376**	.346**	.367**	.910**
SEQSRP Relational	.428**	.389**	.423**	.933**
OSUPTSD Original	.472**	.433**	.463**	.647**
TSCC Total	.424**	.371**	.433**	.585**

** Correlation is significant at the 0.01 level (2-tailed).

Table 8, cont

Correlations: SEQ-SRS (orig), SEQ-SRP (orig) OSU-PTSD (adapt) TSCC (adapt)

Measure	SEQSRP Overt	SEQSRP Relational	OSUPTSD Total	TSCC Total
SEQSRS Total	.376**	.428**	.472**	.424**
SEQSRS Overt	.346**	.389**	.433**	.371**
SEQSRS Relational	..367**	.423**	.463**	.433**
SEQSRP Total	.910**	.933**	.647**	.585**
SEQSRP Overt	1.00	.700**	.541**	.471**
SEQSRP Relational	.700**	1.00	.644**	.599**
OSUPTSD Total	.541**	.644**	1.00	.774**
TSCC Total	.471**	.599**	.774**	1.00

** Correlation is significant at the 0.01 level (2-tailed).

Table 9

Correlations: SEQ-SRS (adapt), SEQ-SRS (orig), SEQ-SRP (adapt), SEQ-SRP (orig), OSU-PTSD (adapt), OSU-PTSD (orig), TSCC (adapt)

Measure	SEQSRS Total(a)	SEQSRS Total(o)	SEQSRP Total(a)	SEQSRP Total(o)
SEQSRS Total(a)	1.00	.972**	.504**	.459**
SEQSRS Total(o)	.972**	1.00	.475**	.438**
SEQSRP Total(a)	.504**	.475**	1.00	.967**
SEQSRP Total(o)	.459**	.438**	.967**	1.00
OSUPTSD Total(a)	.509**	.481**	.693**	.670**
OSUPTSD Total(o)	.493**	.472**	.665**	.647**
TSCC (adapted)	.464**	.424**	.637**	.585**

** Correlation is significant at the 0.01 level (2-tailed).

Table 9, cont

Correlations: SEQ-SRS (adapt), SEQ-SRS (orig), SEQ-SRP (adapt), SEQ-SRP (orig), OSU-PTSD (adapt), OSU-PTSD (orig), TSCC (adapt)

Measure	OSUPTSD Total(a)	OSUPTSD Total(o)	TSCC (adapted)
SEQSRS Total(a)	.509**	.493**	.464**
SEQSRS Total(o)	.481**	.472**	.424**
SEQSRP Total(a)	.693**	.665**	.693**
SEQSRP Total(o)	.670**	.647**	.670**
OSUPTSD Total(a)	1.00	.981**	.798**
OSUPTSD Total(o)	.981**	1.00	.774**
TSCC (adapted)	.798**	.774**	1.00

** Correlation is significant at the 0.01 level (2-tailed).

Table 10

Correlations: SEQ-SRSphysical (adapt), SEQ-SRSverbal (adapt), SEQ-SRSrelational (adapt), SEQ-SRSovert (orig), SEQ-SRSrelational (orig), SEQ-SRPphysical (adapt), SEQ-SRPverbal (adapt), SEQ-SRPrelational (adapt), SEQ-SRPovert (orig), SEQ-SRPrelational(orig)

Measure	SEQSRS Phys(a)	SEQSRS Verb(a)	SEQSRS Relat(a)	SEQSRS overt(o)	SEQSRS Relat(o)
SEQSRS Phys(a)	1.00	.869**	.843**	.969**	.833**
SEQSRS Verb(a)	.869**	1.00	.859**	.841**	.839**
SEQSRS Relat(a)	.843**	.859**	1.00	.795**	.986**
SEQSRS Overt(o)	.969**	.841**	.795**	1.00	.795**
SEQSRS Relat(o)	.833**	.839**	.986**	.795**	1.00
SEQSRP Phys(a)	.407**	.417**	.442**	.371**	.435**
SEQSRP Verb(a)	.429**	.457**	.449**	.387**	.451**
SEQSRP Relat(a)	.473**	.467**	.470**	.413**	.452**
SEQSRP Overt(o)	.363**	.356**	.367**	.346**	.367**
SEQSRP Relat(o)	.448**	.431**	.436**	.389**	.423**

** Correlation is significant at the 0.01 level (2-tailed).

Table 10, cont

Correlations: SEQ-SRSphysical (adapt), SEQ-SRSverbal (adapt), SEQ-SRSrelational (adapt), SEQ-SRSovert (orig), SEQ-SRSrelational (orig), SEQ-SRPphysical (adapt), SEQ-SRPverbal (adapt), SEQ-SRPrelational (adapt), SEQ-SRPovert (orig), SEQ-SRPrelational(orig)

Measure	SEQSRP Phys(a)	SEQSRP Verb(o)	SEQSRP Relat(a)	SEQSRP overt(o)	SEQSRP Relat(o)
SEQSRS Phys(a)	.407**	.429**	.473**	.363**	.448**
SEQSRS Verb(a)	.417**	.457**	.467**	.356**	.431**
SEQSRS Relat(a)	.442**	.449**	.470**	.367**	.436**
SEQSRS Overt(o)	.371**	.387**	.413**	.346**	.389**
SEQSRS Relat(o)	.435**	.451**	.452**	.367**	.423**
SEQSRP Phys(a)	1.00	.865**	.759**	.960**	.746**
SEQSRP Verb(a)	.865**	1.00	.831**	.813**	.826**
SEQSRP Relat(a)	.759**	.831**	1.00	.694**	.983**
SEQSRP Overt(o)	.960**	.813**	.694**	1.00	.700**
SEQSRP Relat(o)	.946**	.826**	.983**	.700**	1.00

** Correlation is significant at the 0.01 level (2-tailed).

Table 11

Principal Axis Factoring (Force 3) with Direct Oblimin Rotation, (SEQ-SRS, adapted)

Factor Pattern Matrix

Item	Loading			
	1	2	3	Communality
How often do you get pushed by your brother/sister at home?	.932			.754
How often does your brother/sister at home call you mean names?	.855			.760
How often does your brother/sister tell you that you are stupid?	.851			.653
How often does your brother/sister yell at you at home?	.842			.647
How often do you get shoved by your brother/sister at home?	.836			.770
How often do you get teased by your brother/sister at home?	.740			.624
How often does your brother/sister kick you?	.716			.595
How often do you get hit by a brother/sister at home?	.703			.524
How often does your brother/sister leave you out on purpose when it is time to play or do an activity?	.630			.533
How often does a brother/sister damage your belongings?	.620			.623
How often does your brother/sister at home steal your belongings?	.510		.439	.581
How often does your brother/sister tell stories about you?	.498			.612
How often does a brother/sister who is mad at you try to get back at you by not letting you be in their group anymore?	.489			.539
How often does your brother/sister say they won't like you unless you do what they want you to do?	.449			.561
How often does your brother/sister pull your hair?	.446			.371
How often have you had to do something you didn't want to do because another kid hit you?		.883		.792
How often have you had to do something you didn't want to do because your brother/sister spread rumors about you?		.815		.701

How often have you had to do something you didn't want to do because your brother/sister threatened you?		.759		.674
How often does your brother/sister say they will beat you up if you don't do what they want you to do?		.698		.689
How often does your brother/sister tell you that something bad will happen if you do not do what they say?		.690		.581
How often does your brother/sister tell lies about you to make other kids not like you anymore?		.410		.648
How often does your brother/sister curse at you?		.377		.405
How often does your brother/sister try to keep others from liking you by saying mean things about you?			.401	.756
Eigenvalues	12.54	1.10	0.75	
% of variance	54.52	4.79	3.27	

Note. Loadings <.40 are omitted.

Table 12

Principal Axis Factoring (force 2) with Oblimin Rotation (SEQ-SRS), original scale items)

Factor Pattern Matrix

Item	Loading		
	1	2	Communality
How often do you get shoved by another kid at school?	.944		.789
How often do you get pushed by a brother/sister at home?	.906		.783
How often do you get hit by your brother/sister at home?	.777		.540
How often does your brother/sister kick you?	.764		.609
How often does your brother/sister leave you out on purpose when it is time to play or do an activity?	.564		.519
How often does your brother/sister pull your hair?	.474		.374
How often does your brother/sister who is mad at you try to get back at you by not letting you be in their group anymore?	.410		.557
How often does a brother/sister who is mad at you try to get back at you by not letting you be in their group anymore?		.880	.779
How often does a brother/sister tell lies about you to make other kids not like you anymore?		.847	.711
How often does your brother/sister say they won't like you unless you do what they want you to do?		.459	.586
Eigenvalues	5.77	.481	
% of variance	57.67	4.81	

Table 13

Principal Axis Factoring (force 3) with Direct Oblimin Rotation (SEQ-SRP, adapted)

Factor Pattern Matrix

Item	Loading			
	1	2	3	Communality
How often does a classmate tell lies about you to make other kids not like you anymore?	.902			.719
How often does a kid try to keep others from liking you by saying mean things about you?	.795			.708
How often does another kid tell stories about you?	.718			.706
How often does a kid who is mad at you try to get back at you by not letting you be in their group anymore?	.601			.488
How often do other kids leave you out on purpose when it is time to play or do an activity?	.588			.489
How often does another kid at school call you mean names?	.523			.689
How often do you get teased by another kid at school?	.521			.516
How often does another kid yell at you at school?	.505			.568
How often does a classmate tell you that you are stupid?	.462		.422	.526
How often does another kid curse at you?	.426			.468
How often have you had to do something you didn't want to do because another kid hit you?		-.886		.711
How often have you had to do something you didn't want to do because another kid threatened you?		-.827		.744
How often does another kid say they will beat you up if you don't do what they want you to do?		-.762		.674
How often does another kid pull your hair?		-.695		.499
How often does another kid damage your belongings?		-.576		.628
How often does another kid say they won't like you unless you do what they want you to do?		-.562		.666
How often does a classmate tell you that something bad will happen if you don't do what they say?		-.556		.607
How often does another kid kick you?		-.517	.502	.656
How often does another kid at school steal your belongings?		-.488		.479

How often have you had to do something you didn't want to do because another kid spread rumors about you?	.463	-.479		.597
How often do you get hit by another kid at school?			.634	.634
How often do you get shoved by another kid at school?			.600	.745
How often do you get pushed by another kid at school?			.591	.649
Eigenvalues	12.11	1.10	.947	
% of variance	52.67	4.80	4.12	

Table 14

Principal Axis Factoring (force 2) with Direct Oblimin Rotation (SEQ-SRP, original scale items)

Factor Pattern Matrix

Item	Loading		
	1	2	Communality
How often do you get hit by another kid at school?		-.857	.639
How often does another kid kick you?		-.814	.640
How often do you get pushed by another kid at school?		-.790	.670
How often do you get shoved by another kid at school?		-.716	.681
How often does a kid try to keep others from liking you by saying mean things about you?	.844		.718
How often does a kid who is mad at you try to get back at you by not letting you be in their group anymore?	.787		.557
How often do other kids leave you out on purpose when it is time to play or do an activity?	.768		.562
How often does another kid say they won't like you unless you do what they want you to do?	.718		.587
How often does a classmate tell lies about you to make other kids not like you anymore?	.699		.577
Eigenvalues	5.27	.740	
% of variance	52.66	7.40	

Table 15a

Between Subject Effects: Multivariate Analysis of Variance for Gender by Types of Sibling and Peer Victimization (SEQ-SRS adapted) (SEQ-SRP adapted)

Source	df	F	η^2	p
SEQSRS (adapted) Physical	1	6.658	.028[c]	.010*
SEQSRS (adapted) Verbal	1	7.739	.033[c]	.006**
SEQSRS (adapted) Relational	1	6.176	.026[c]	.014*
SEQSRP (adapted) Physical	1	.353	.002	.553
SEQSRP (adapted) Verbal	1	.001	.000	.974
SEQSRP (adapted) Relational	1	6.776	.029[c]	.010**

Note: Effect Sizes (η^2) were calculated for each victimization type.
[a]Large effect size (.14). [b]Medium effect size (.06). [c]Small effect size (.01)
*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Table 15b

Between Subject Effects: Multivariate Analysis of Variance for Gender by Types of Sibling and Peer Victimization (SEQ-SRS original) (SEQ-SRP original)

Source	df	F	η^2	p
SEQSRS (original) Overt	1	5.763	.025[c]	.017*
SEQSRS (original) Relational	1	6.047	.026[c]	.015*
SEQSRP (original) Overt	1	2.561	.011[c]	.111
SEQSRP (original) Relational	1	5.491	.024[c]	.020*

Note: Effect Sizes (η^2) were calculated for each victimization type.
[a]Large effect size (.14). [b]Medium effect size (.06). [c]Small effect size (.01)
*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Table 16

Between Subject Effects: Analysis of Variance for Birth Order on Sibling Victimization

Source	df	F	η^2	p
SEQSRS (adapted)	1	.699	.003	.404
SEQSRS (original)	1	.006	.000	.936

Note: Effect Sizes (η^2) were calculated for each victimization type.
[a]Large effect size (.14). [b]Medium effect size (.06). [c]Small effect size (.01)
*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Table 17

Summary of Regression Analysis for Sibling Victimization predicting Peer Victimization (N=232)

Variable	Zero-Order Correlation	Semi-partial Correlation
SEQ-SRS total score (adapted)	.491	.491

Note: $R^2 = .241$; $\Delta R^2 = .238$ ($p \leq .05$)

Table 18

Summary of Regression Analysis for Sibling Victimization predicting Peer Victimization (N=228)

Variable	Zero-Order Correlation	Semi-partial Correlation
SEQ-SRS total score (original)	.434	.434

Note: $R^2 = .189$; $\Delta R^2 = .185$ ($p \leq .05$)

Table 19

Summary of Multiple Regression Analysis for Sibling Victimization and Peer Victimization predicting PTSD (OSU-PTSD measure) (N=231)

Variable	Zero-Order Correlation	Semi-partial Correlation
SEQ-SRS total score (adapted)	.483	.239
SEQ-SRP total score (adapted)	.663	.557

Note: Adapted: $R^2 = .471$; $\Delta R^2 = .466$ ($p \leq .05$)

Table 20

Summary of Multiple Regression Analysis for Sibling Victimization and Peer Victimization predicting PTSD (OSU-PTSD measure) (N=227)

Variable	Zero-Order Correlation	Semi-partial Correlation
SEQ-SRS total score (original)	.468	.268
SEQ-SRP total score (original)	.649	.558

Note: $R^2 = .462$; $\Delta R^2 = .458$ ($p \leq .05$)

Table 21

Summary of Multiple Regression Analysis for Sibling Victimization and Peer Victimization predicting PTSD (TSCC measure) (N=220)

Variable	Zero-Order Correlation	Semi-partial Correlation
SEQ-SRS total score (adapted)	.452	.200
SEQ-SRP total score (adapted)	.638	.533

Note: $R^2 = .430$; $\Delta R^2 = .425$ ($p \leq .05$)

Table 22

Summary of Multiple Regression Analysis for Sibling Victimization and Peer Victimization predicting PTSD (TSCC measure) (N=217)

Variable	Zero-Order Correlation	Semi-partial Correlation
SEQ-SRS total score (original)	.419	.227
SEQ-SRP total score (original)	.586	.495

Note: $R^2 = .378$; $\Delta R^2 = .425$ ($p \leq .05$)

APPENDICES

Appendix A – Parent Solicitation Form

Hi! My name is **Kristen Capaccioli** and I am a graduate student in the School Psychology program at Oklahoma State University. I along with **Jamey Crosby** have had contact with your school's principal, who has given us the go ahead to ask you for permission to let your child take part in a study about BULLYING that we are doing to complete our ***Dissertation projects.***

We wanted to give you a "heads up" about what our study is going to be about. We are doing this study in order to learn about what kinds of **bullying** are occurring at your child's school, which kids are getting **bullied** (by age/grade/gender), how often they are getting **bullied** and where they are getting **bullied** (e.g., bathrooms, hallways, etc.). We want to let you know that no student names will be revealed, meaning that we can provide the school with the previously mentioned information, but we will not be able to single out which kids are doing the **bullying** or getting **bullied.**

We wanted to let you know in advance about this study because **WE NEED YOUR HELP!!!** The more students that we can have in this study, the more useful the information that we collect will be for telling us about your child's school and the kinds of **bullying** that is happening.

IN ABOUT A WEEK, WE ARE GOING TO SEND A PACKET HOME WITH YOUR CHILD. The packet will contain more detailed information on the study, as well as a parent permission form for you to sign if you are interested in letting your child participate in this study. As a thank you for allowing your child to participate in the study, we will be sending home a detailed packet with very important information about bullying that will hopefully be very useful for you and your children.

We realize that your time is very valuable and would like to thank you in advance for allowing your child to participate in our study. We truly believe that this study will be useful and that it will provide you and your child's school with extremely important information about the many different ways bullying may be occurring in your child's school.

Sincerely,

_____ _____

Kristen Capaccioli, M.S. Jamey Crosby, M.S.

If you have any questions or concerns regarding your rights as a participant in this research project, please contact the Oklahoma State University Institutional Review Board. If you have any additional concerns regarding this project please feel free to contact the researchers.

- Dr. Judy Oehler-Stinnett-(405) 744-9450 judv.oehler_stinnett@okstate.edu

- Jamey Crosby, MS.-(405) 744-9505 jamey.crosbv@okstate.edu
- Kristen Capaccioli, M.S.-(405) 744-9434 kristen.capaccioli@okstate.edu
- Dr. Sue C. Jacobs, IRB Chair, 219 Cordell North, Stillwater, OK 74078, (405) 744-1676 or irb@okstate.edu.

Appendix B – Teacher Solicitation Form

Hi! My name is **Kristen Capaccioli** and I **am** a graduate student in the School Psychology program at **Oklahoma State University.** I along with **Jamey Crosby** have had contact with your school's principal, who has given us the go ahead to tell you about a study about **BULLYING** that we are conducting in order to complete our ***Dissertation Projects.***

We wanted to give you a "heads up" about what our study is going to involve. We will be coming into your school and administering surveys to students that should take between 45 minutes and an hour to complete. We are doing this study in order to learn about what kinds of **bullying** are occurring at your school, which kids are getting **bullied** (by age/grade/gender), how often they are getting **bullied** and where they are getting **bullied** (e.g., bathrooms, hallways, etc.). We want to let you know that no student names will be disclosed, meaning that we can provide the school with the previously mentioned information, but we will not be able to single out which kids are **bullying** or getting **bullied.**

We wanted to let you know in advance about this study because **WE NEED YOUR HELP!!!** The more students that we can have in this study, the more useful the information that we collect will be for telling us about your school and the kinds of **bullying** that is happening. In addition to the letter you are currently reading, letters are also being sent out to parents to inform them about the study. In about a week, we will ask you to send a packet home with your students. These packets will contain more detailed information on the study, as well as forms for parent permission.

Your distribution and collection of these packets will be an invaluable part of this project!!! If possible, we want to ask you to remind and encourage those students who may be interested in the study to return their packets in a timely fashion. If needed, we can provide replacement packets for those that get lost, etc.

We realize that your time is very valuable and would like to thank you in advance for allowing your child to participate in our study. We truly believe that this study will be useful and that it will provide you and your school with extremely important information about the many different ways bullying may be occurring at your school.

Sincerely,

_____ _____

Kristen Capaccioli, M.S. Jamey Crosby, M.S.

If you have any questions or concerns regarding your rights as a participant in this research project, please contact the Oklahoma State University Institutional Review Board. If you have any additional concerns regarding this project please feel free to contact the researchers.

- Dr. Judy Oehler-Stinnett4405) 744-9450 judv.oehler_stinnett@okstate.edu
- Jamey Crosby, MS.-(405) 744-9505 jamey.crosby@okstate.edu
- Kristen Capaccioli, M.S.4405) 744-9434 kristen.capaccioli@okstate.edu
- Dr. Sue C. Jacobs, IRB Chair, 219 Cordell North, Stillwater, OK 74078, (405) 744-1676 or irb@okstate.edu.

Appendix C – Parent Information Letter

Dear Parents,

As a parent, you probably know that bullying has become more of a serious concern over recent years. Many children and adolescents report being bullied at school. Some of these children/adolescents also report being very distressed or upset about being bullied. We now know that there are many things we can do to reduce bullying in the schools, but there is still work to be done. With the help of kids, parents, teachers, and researchers, we are striving to make every school a *safer place*.

We are writing to ask your permission to include your son/daughter in a research study being conducted by two school psychology doctoral students at Oklahoma State University. These researchers are investigating different forms of bullying (from all kids such as other students and siblings), how kids deal with bullying, and how they react if they have been bullied. This information will be very important to your child's school in that they will be able to learn about general bullying behaviors that are occurring (such as where children are being bullied) in their school. This can help those who work with your child to make plans on reducing school violence on your child's campus.

To complete this study, your child would be asked to fill out five forms about bullying and stressful reactions that may occur as a result of being bullied. Because of the subject matter of the forms, children *will not* be asked to put their name on any of these forms. So there will be *no way* to link your child to his or her responses.

We will *not* be providing any kind of treatment to the children in this study. This means that if any students respond that they are at risk for endangering themselves we would not know who they are and could not provide any help. However, the team of individuals collecting this data is trained in counseling and crisis intervention and we have plans in place to offer help to any child who appears upset or tells us that they are planning to harm themselves or someone else. Furthermore, if a child appears to be upset, but does not ask for help, we also have a plan in place to quietly pull them aside and offer the appropriate help.

As a thank you for allowing your child to participate in this research study, you have received a packet of information about bullying behaviors and ways to help your children if they are being bullied. Your child will also have a *choice* of a small prize (e.g., a toy or candy) or to be entered into a drawing for a $20 gift certificate to a local retail business. (There will be a separate drawing for each grade at your child's campus.) As stated earlier it is hoped that the results of this study will assist those who work with schools, families, and children to better understand how children are affected when they experience bullying. This study may help professionals at the local, state, and national levels to better assist students in dealing with bullying.

Included in this envelope are two forms for you to complete if you would like your child to participate. Your child will receive additional forms for them to complete at their

school should you decide to participate. In order to participate in this school-wide study, please fill out the parental consent form included in this envelope. Please return it to your child's school as quickly as possible. If at all possible, we would like to have the packet back to school by _____, as researchers will be coming to work with the children in your community on _____.

General results of the study will be posted on a webpage at http://OSUbullyingstudy.homepage.com as results are studied and analyzed. Sample questions that demonstrate the type of questions your child will be answering are included in your packet. If you have any questions or concerns about this project, please feel free to contact the researchers or the Oklahoma State University Institutional Review Board.

- Dr. Judy Oehler-Stinnett—(405) 744-9450 judy.oehler_stinnett@okstate.edu
- Jamey Crosby, M.S.—(405) 744-9505 jamey.crosby@okstate.edu
- Kristen Capaccioli, M.S.—(405) 744-9434 kristen.capaccioli@okstate.edu
- Dr. Sue C. Jacobs, IRB Chair, 219 Cordell North, Stillwater, OK 74078, (405) 744-1676 or irb@okstate.edu.

Sincerely,

Jamey Crosby, M.S.
Doctoral Student
School of Applied Health and Educational Psychology
Oklahoma State University
226 Willard Hall
Stillwater, OK 74078

Kristen Capaccioli, M.S.
Doctoral Student
School of Applied Health and Educational Psychology
Oklahoma State University
441 Willard Hall
Stillwater, OK 74078

Appendix 4 – Sample Questions

This page is for you to keep.

Below are samples that are ***actual questions*** taken from one of your child's questionnaires. Should you have questions or want further explanation or interpretation, please contact the researchers at these contact numbers. They will discuss with you all of the questions (if you desire) prior to your child's participation.

- Dr. Judy Oehler-Stinnett—(405) 744-9450 judy.oehler_stinnett@okstate.edu
- Jamey Crosby, M.S.—(405) 744-9505 jamey.crosby@okstate.edu
- Kristen Capaccioli, M.S.—(405) 744-9434 kristen.capaccioli@okstate.edu

- Or the Institutional Review Board of Oklahoma State University: Dr. Sue C. Jacobs, IRB Chair, 219 Cordell North, Stillwater, OK 74078, (405) 744-1676 or irb@okstate.edu.

How often do you get shoved by another kid at school?

How often does a classmate tell lies about you to make other kids not like you anymore?

I have bad dreams or nightmares about being bullied.

Changed something about yourself so you could deal with the situation better.

How often does a brother/sister tell you that you are stupid?

Appendix 5 – Parental Consent Form

Reactions to Bullying and Ways of Coping
Parental Consent

I, _____, agree to allow Jamey Crosby and Kristen Capaccioli, doctoral students in school psychology at Oklahoma State University, or associates or assistants:

To administer questionnaires to my child _____ to find out about his/her experiences with bullying and what he/she did about it. This study is examining the different forms of bullying, as well as the prevalence of stressful reactions in some victims of bullying and the types of symptoms a child may have when they are bullied. I am aware that the results of this project may assist professionals to better help children who experience bullying. I am also aware that general results about bullying at my child's school will be used in order to provide school administrators with information that may help to identify and reduce bullying at their schools.

Mr. Crosby and Ms. Capaccioli are doctoral graduate students at Oklahoma State University and this study is being conducted through Oklahoma State University under the supervision of faculty who are licensed psychologists in the State of Oklahoma. I understand and agree that the identity of my child is to be kept confidential. I know that researchers will notify me if my child seeks help from the school counselor or school psychologist.

I understand that the researchers will *not* be providing any kind of treatment to the children in this study. This means that if any students respond that they are at risk for endangering themselves we would not know who they are and could not provide any help. I understand that the team of individuals collecting this data is trained in counseling and crisis intervention and we have plans in place to offer help to any child who appears upset or tells us that they are planning to harm themselves or someone else. There will be a form within the packet of questionnaires on which your child can indicate whether or not he/she is upset and is in need of services from the school counselor or school psychologist. I understand that if my child appears to be upset, but does not ask for help, we also have a plan in place to quietly pull them aside and offer the appropriate help.

This study is part of Mr. Crosby and Ms. Capaccioli's dissertation. I understand that the results of this study may be published but that the answers my child gives on questionnaires used by the researchers will be kept confidential. I understand that my child's answers will be given anonymously and that my child's name or any other identifying information will not be kept with his/her answers. I understand that general results about bullying (i.e. what is happening, where it is happening, etc.) will be used to give school principals and counselors' information about what is happening at their schools. I understand that participation is voluntary and I or my child can choose not to participate at any time.

Additional information on the general results of the research project and information on bullying will be posted on a webpage maintained by the researchers. This webpage will be available for a year following completion of the project.

Any questions or concerns I have can be directed to the researchers or the supervising professor in this study. They may be reached at:

- Dr. Judy Oehler-Stinnett—(405) 744-9450 judy.oehler_stinnett@okstate.edu
- Jamey Crosby, M.S.—(405) 744-9505 jamey.crosby@okstate.edu
- Kristen Capaccioli, M.S.—(405) 744-9434 kristen.capaccioli@okstate.edu

Or the Institutional Review Board of Oklahoma State University: Dr. Sue C. Jacobs, IRB Chair, 219 Cordell North, Stillwater, OK 74078, (405) 744-1676 or irb@okstate.edu.

In signing this consent form, I am indicating that I understand the conditions of this study and agree to allow my child and myself to participate.

_____ _____

Parent's Name (Please Print Clearly) Date

Work Phone Number (Mother): _____
Work Phone Number (Father): _____
Home Phone: _____

Appendix 6 – Child Assent

Reactions to Bullying and Ways of Coping
Child Assent

I, _____, agree to take part in a study of how
(please print your name here)
children feel when they are bullied and how they deal with being bullied. I know that my parents have given permission for me to take part in this study. However, I understand that I do not have to take part in this study if I don't want to. I also know that the results of this study may help officials better understand how to help students who have been bullied and that by taking part, I may be helping other people in the future. I know that my identity will be kept anonymous. This means that nobody will know who I am when they read my answers. I know that answering some of the questions may be stressful. I also know that if I want to talk to someone about this study or the way that I feel, I can use the form in this package to tell the researchers about it. I can tell the researchers that I want to meet with someone now, or that I want to talk to someone later. For my participation in this study, I will be able to choose between a small prize or candy OR to have my name put into a drawing for a $20 gift certificate to a local retail store.

I agree to do my best when answering the questions about how I feel about bullying. I will answer honestly and carefully.

_____ _____
Please sign your name Date

Appendix 7 – Counselor Contact Form (TX)

If you would like to speak to a counselor or one of the researchers about any of these issues, please say so below and you will be taken to the counselor's office or contacted confidentially.

Name: _____

_____I would like to go to the counselor's office NOW.

I would like to talk to:

The school counselor ☐

A School Psychology Doctoral Student ☐
(One of the researchers)

_____ I would like to be contacted later so that I can talk to a counselor.

I would like to talk to:

The school counselor ☐

A School Psychology Doctoral Student ☐
(One of the researchers)

_____I would like my parents to know I have concerns and an appointment be set up to talk to someone from the Taylor/Callahan Education Cooperative.

_____I do not wish to speak to anyone or be contacted.

_____

Signature

Appendix 8 – Counselor Contact Form (OK)

If you would like to speak to a counselor or one of the researchers about any of these issues, please say so below and you will be taken to the counselor's office or contacted confidentially.

Name: _____

_____I would like to go to the counselor's office NOW.

I would like to talk to:

The school counselor ☐

A School Psychology Doctoral Student ☐
(One of the researchers)

_____I would like to be contacted later so that I can talk to a counselor.

I would like to talk to:

The school counselor ☐

A School Psychology Doctoral Student ☐
(One of the researchers)

_____I would like my parents to know I have concerns and an appointment be set up with the OSU School Psychology Clinic in Stillwater, OK.

_____I do not wish to speak to anyone or be contacted.

_____

Signature

Appendix 9 – Parent Follow Up Form

Dear Parent,

You recently received an information packet asking permission for your child to participate in a study titled "Reactions to Bullying and Ways of Coping". Attached to this letter you will find a description of the study being conducted by the researchers. With your help, we hope to make every school a safer place.

If you have not yet returned your permission form (and you would like for your child to participate), we would like to encourage you to do so. We will be on the campus of (insert campus name and date here).

If you did not receive the first packet or you do not have the parent permission forms, please contact one of the researchers and we will send you a new parent permission form.

- Jamey Crosby, M.S.-(405) 744-9434 jamey.crosby@okstate.edu
- Kristen Capaccioli, M.S.-(405) 744-9434 kristen.capaccioli@okstate.edu

Please return that permission form to your child's school by (insert date here).

Remember, if you allow your child to participate, he/she will be given a choice of the chance to put his/her name in a drawing to win a gift certificate (for $20) that will be provided from a local restaurant/retail store, or the choice of a small prize (e.g., candy, a toy, etc.). There will be a separate drawing for each grade level at each school where data collection occurs. Also, for allowing your child to participate, you will receive a packet of information on bullying, identification of victims, and general information on interventions and seeking assistance.

Thank you.

Jamey Crosby, M.S.
Doctoral Student
School of Applied Health and Educational Psychology
Oklahoma State University
226 Willard Hall
Stillwater, OK 74078

Kristen Capaccioli, M.S.
Doctoral Student
School of Applied Health and Educational Psychology
Oklahoma State University
441 Willard Hall
Stillwater, OK 74078

Appendix 10 – Demographics Questionnaire

Demographics Questionnaire

Please provide the following important information. *(Please print clearly.)*

Child's Gender: (Circle one) Male Female

Child's Date of Birth: _____
mm/dd/yy

Grade in School: _____

Ethnicity: White Native American Black Asian Hispanic Other _____
(Circle all that apply)

Educational Level of Parent: *Circle highest grade completed*

Mother:	Some High School	H.S. Graduate	GED	Technical School	College (1,2,3,4)	Graduate School
Father:	Some High School	H.S. Graduate	GED	Technical School	College (1,2,3,4)	Graduate School

How many children/adolescents do you have in your household? _____

Please list the age(s) of your child's sibling(s):
_____

Please indicate the place in birth order of your child/adolescent:
(the child you are providing consent for)

Birth Order: 1st 2nd 3rd 4th 5th 6th 7th
(Please Circle)

Is bullying a problem at your child's school?
(circle one)

YES NO

How are your child's grades overall?
(circle one)

POOR FAIR GOOD EXCELLENT

Appendix 11 – Demographics Survey from WCCL

Demographics Questionnaire for Students

Please Circle: Boy Girl

Grade: 3rd 4th 5th 6th 7th 8th 9th

Age: _____years _____months

How many brothers/sisters do you have? _____

How old are they? _____ _____ _____ _____ _____

"We say a child is being bullied, or picked on when another child, or a group of children, say mean and unpleasant things to him or her. It is also bullying when a child is hit, kicked, threatened, or when no one ever talks to them and things like that. These things can happen frequently (a lot) and it is difficult for the child being bullied to defend himself or herself. It is also bullying when a child is teased repeatedly (a lot) in a mean way. But, it is not bullying when two children of about the same strength have an odd fight or argument."

1. How often have you been bullied this school year?

Not at all ☐ Once or twice ☐ Sometimes ☐

About Once a Week ☐ Several times a week ☐

2. Where were you bullied most often?

In class ☐ Hallways ☐ Playground/School yard ☐

Bathroom ☐ To/from School ☐ Locker Room ☐

3. Were you usually bullied by –

A) Boy(s) ☐ Girls(s) ☐

B) Younger Kids ☐ Older Kids ☐ Same Age ☐

C) Same Person ☐ Different People ☐

D) One Person ☐ A Group of People ☐

4. Do you think the person who bullied you was (check all that apply)–

Stronger than you ☐ Smarter than you ☐ More popular than you ☐

Better looking than you ☐ Trying to get you to do something ☐

5. How often have you <u>taken part</u> in bullying other children this school year?

Not at all ☐ Once or twice ☐ Sometimes ☐

About once a week ☐ Several times a week ☐

6. How often have others <u>helped you</u> when you are being bullied this school year?

Not at all ☐ Once or twice ☐ Sometimes ☐

About once a week ☐ Several times a week ☐

7. How often have you watched someone bullying other children this school year?

Not at all ☐ Once or twice ☐ Sometimes ☐

About once a week ☐ Several times a week ☐

8. How often have you helped someone who you have seen being bullied this school year?

Not at all ☐ Once or twice ☐ Sometimes ☐

About once a week ☐ Several times a week ☐

9. How long ago did the bullying start?

1 – 4 weeks ☐ 1 –3 months ☐

3 – 6 months ☐ More than 6 months ☐

10. Do you feel that you can stop the bullying?

Yes ☐ No ☐ Don't Know ☐

If yes, how could you stop the bullying?

11. Do you think that anything good will happen to you as a result of being bullied?

Yes ☐ No ☐ Don't Know ☐

If yes, what good things might happen?

12. Do you think that anything bad will happen to you as a result of being bullied?

Yes ☐ No ☐ Don't Know ☐

If yes, what bad things might happen?

13. How well do you think you can deal with the bullying? (circle a number)

Not well ⟵ Very well

1 2 3 4

14. When you are being bullied, <u>how afraid are you</u>? (circle a number)

Not afraid at all ⟵ Very Afraid

0 1 2 3 4

15. Do you think that bullying is a problem in your school?

Yes ☐ No ☐ Don't Know ☐

16. How often are adults around when you're bullied?

Not at all ☐ Sometimes ☐ Most of the Time ☐

All of the Time ☐

17. How many bullies do you think there are at your school?

0 ☐ 1-3 ☐ 4-6 ☐

7-10 ☐ 11+ ☐

18. Is there anything else you would like for us to know about bullying? (please write about it below)

Appendix 12 – SEQ-SRS (adapted)

SEQ-SR(S) (adapted)

"We say a child is <u>being bullied</u>, or picked on when another child, or a group of children, say mean and unpleasant things to him or her. It is also bullying when a child is hit, kicked, threatened, or when no one ever talks to them and things like that. These are things that happen frequently (a lot) and it is difficult for the child being bullied to defend himself or herself. It is also bullying when a child is teased repeatedly (a lot) in a mean way. But, it is not bullying when two children of about the same strength have an odd fight or argument."

THINGS THAT HAPPEN TO ME

DIRECTIONS: Here is a list of things that sometimes happen to kids your age at home. How often does your brother/sister do these things to you at home?

EXAMPLE:

A. How often do you eat lunch at home?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

B. How often do you go outside and play?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

1. How often do you get hit by a brother/sister at home?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

2. How often does your brother/sister leave you out on purpose when it is time to play or do an activity?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

3. How often does your brother/sister yell at you at home?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

4. How often does a brother/sister who is mad at you try to get back at you by not letting you be in their group anymore?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

5. How often do you get pushed by your brother/sister at home?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

6. How often does your brother/sister tell you that you are stupid?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

7. How often does a brother/sister tell lies about you to make other kids not like you anymore?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

8. How often does your brother/sister tell you that something bad will happen if you do not do what they say?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

9. How often does your brother/sister kick you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

10. How often does your brother/sister say they won't like you unless you do what they want you to do?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

11. How often do you get teased by your brother/sister at home?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

12. How often does your brother/sister pull your hair?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

13. How often does your brother/sister try to keep others from liking you by saying mean things about you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

14. How often does your brother/sister say they will beat you up if you don't do what they want you to do?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

15. How often do you get shoved by your brother/sister at home?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

16. How often does your brother/sister at home call you mean names?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

17. How often does your brother/sister steal your belongings?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

18. How often does your brother/sister tell stories about you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

19. How often does your brother/sister curse at you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

20. How often does your brother/sister damage your belongings?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

21. How often have you had to do something you didn't want to do because your brother/sister threatened you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

22. How often have you had to do something you didn't want to do because your brother/sister hit you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

23. How often have you had to do something you didn't want to do because your brother/sister spread rumors about you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

Appendix 13 – SEQ-SRP (adapted)

SEQ-SR(P) (adapted)

"We say a child is <u>being bullied</u>, or picked on when another child, or a group of children, say mean and unpleasant things to him or her. It is also bullying when a child is hit, kicked, threatened, or when no one ever talks to them and things like that. These things happen frequently (a lot) and it is difficult for the child being bullied to defend himself or herself. It is also bullying when a child is teased repeatedly (a lot) in a mean way. But, it is not bullying when two children of about the same strength have an odd fight or argument."

THINGS THAT HAPPEN TO ME

DIRECTIONS: Here is a list of things that sometimes happen to kids your age at school. How often do they happen to you at school?

EXAMPLE:

A. How often do you eat lunch at school?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

B. How often does your class go outside to play?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

1. How often do you get hit by another kid at school?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

2. How often do other kids leave you out on purpose when it is time to play or do an activity?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

3. How often does another kid yell at you at school?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

4. How often does a kid who is mad at you try to get back at you by not letting you be in their group anymore?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

5. How often do you get pushed by another kid at school?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

6. How often does a classmate tell you that you are stupid?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

7. How often does a classmate tell lies about you to make other kids not like you anymore?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

8. How often does a classmate tell you that something bad will happen if you do not do what they say?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

9. How often does another kid kick you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

10. How often does another kid say they won't like you unless you do what they want you to do?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

11. How often do you get teased by another kid at school?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

12. How often does another kid pull your hair?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

13. How often does a kid try to keep others from liking you by saying mean things about you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

14. How often does another kid say they will beat you up if you don't do what they want you to do?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

15. How often do you get shoved by another kid at school?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

16. How often does another kid at school call you mean names?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

17. How often does another kid at school steal your belongings?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

18. How often does another kid tell stories about you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

19. How often does another kid curse at you?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

20. How often does another kid damage your belongings?

1 NEVER	2 ALMOST NEVER	3 SOMETIMES	4 ALMOST ALL THE TIME	5 ALL THE TIME

21. How often have you had to do something you didn't want to do because another kid threatened you?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

22. How often have you had to do something you didn't want to do because another kid hit you?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

23. How often have you had to do something you didn't want to do because another kid spread rumors about you?

1	2	3	4	5
NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALL THE TIME	ALL THE TIME

Appendix 14 – OSU-PTSD Scale (adapted)

Child Form DSM-IV Questionnaire

"We say a child is being bullied, or picked on when another child, or a group of children, say mean and unpleasant things to him or her. It is also bullying when a child is hit, kicked, threatened, or when no one ever talks to them and things like that. These things happen frequently (a lot) and it is difficult for the child being bullied to defend himself or herself. It is also bullying when a child is teased repeatedly (a lot) in a mean way. But, it is not bullying when two children of about the same strength have an odd fight or argument."

Please circle the number that best describes how often you have felt this way.

0 = never 1 = sometimes 2 = often 3 = most of the time 4 = always

	0 = Never	1 = Sometimes	2 = Often	3 = Most of the time	4 = Always
1. I get really very scared thinking about being bullied.	0	1	2	3	4
2. I felt like I couldn't help myself when I was being bullied.	0	1	2	3	4
3. I pretend or play like I am being bullied again.	0	1	2	3	4
4. I don't feel I will marry.	0	1	2	3	4
5. I feel like I'm being bullied again.	0	1	2	3	4
6. I don't like to be away from my parents now.	0	1	2	3	4
7. I am more jumpy (startle more easily) since being bullied.	0	1	2	3	4
8. I don't feel like I will have children.	0	1	2	3	4
9. I have felt sick since I have been	0	1	2	3	4

bullied.					
10. I feel like I would not have been bullied if I was a better person.	0	1	2	3	4
11. I get upset when I see other kids being bullied.	0	1	2	3	4
12. I cannot remember some important things about being bullied.	0	1	2	3	4
13. I have more bad dreams now than before I was bullied.	0	1	2	3	4
14. I feel like the bullying is happening again sometimes.	0	1	2	3	4
15. I get hyper when I have seen other kids being bullied.	0	1	2	3	4
16. I don't like to sleep alone when I'm thinking about being bullied.	0	1	2	3	4
17. I worry that I might die before I grow up.	0	1	2	3	4
18. I get really very scared when I am being bullied.	0	1	2	3	4
19. I shake when I think about being bullied.	0	1	2	3	4
20. I dream about being bullied.	0	1	2	3	4
21. I get angry when I think about being bullied.	0	1	2	3	4
22. I feel different from others since being bullied.	0	1	2	3	4
23. I do not like to	0	1	2	3	4

hear people talk about bullying.					
24. I shake when I have seen other kids being bullied.	0	1	2	3	4
25. Feelings about bullying cause trouble with my life.	0	1	2	3	4
26. I am angry that no one stops the bullying.	0	1	2	3	4
27. Since being bullied, I worry something might happen again.	0	1	2	3	4
28. I could have done something to stop being bullied.	0	1	2	3	4
29. Since being bullied, I worry I can't count on others to help me.	0	1	2	3	4
30. It was my fault that I was bullied.	0	1	2	3	4
31. I do not like to think about getting bullied.	0	1	2	3	4
32. I can't stop thinking about being bullied.	0	1	2	3	4
33. Feelings about bullying make me feel bad.	0	1	2	3	4
34. I am not interested in things I used to like since being bullied.	0	1	2	3	4
35. I get upset like it is happening again when I hear people talk about bullying.	0	1	2	3	4
36. I get upset like it is happening again when I see	0	1	2	3	4

things about bullying on TV.					
37. I feel like the bullying is a movie in my mind.	0	1	2	3	4
38. I get angry about being bullied.	0	1	2	3	4
39. I have stomachaches since I have been bullied.	0	1	2	3	4
40. I have trouble thinking since being bullied.	0	1	2	3	4
41. I try and not go places that make me think about being bullied.	0	1	2	3	4
42. I get angry when I have seen other kids being bullied.	0	1	2	3	4
43. I miss school because of bullying.	0	1	2	3	4
44. I worry about bullying.	0	1	2	3	4
45. I worry that I will be humiliated or embarrassed.	0	1	2	3	4
46. I stay away from home because of bullying.	0	1	2	3	4
47. I worry that I will get hurt.	0	1	2	3	4
48. I worry about the future now.	0	1	2	3	4
49. I get angry more since being bullied.	0	1	2	3	4
50. I get hyper when I think about being bullied.	0	1	2	3	4
51. Sometimes, things do not feel real.	0	1	2	3	4
52. I avoid places where I've been	0	1	2	3	4

bullied.					
53. Have more trouble with adults than I used to.	0	1	2	3	4
54. I have trouble concentrating since I was bullied.	0	1	2	3	4
55. Since being bullied, I do risky things that might get me hurt.	0	1	2	3	4
56. I don't like to sleep alone when I have seen other kids being bullied.	0	1	2	3	4
57. I used to think the world was a safe place.	0	1	2	3	4
58. I watch out for bad things since being bullied. I am very alert.	0	1	2	3	4
59. I think I have lost control of my feelings.	0	1	2	3	4
60. Since being bullied, I don't like to be away from the people who keep me safe.	0	1	2	3	4
61. I have trouble organizing my schedule since I was bullied.	0	1	2	3	4
62. Have more trouble with family than I used to.	0	1	2	3	4
63. I have had trouble staying asleep since being bullied.	0	1	2	3	4
64. I have felt alone since I was bullied.	0	1	2	3	4
65. I have had trouble falling asleep since being	0	1	2	3	4

bullied.					
66. When I think about being bullied, I have trouble sleeping.	0	1	2	3	4
67. I don't trust others the way I used to.	0	1	2	3	4
68. I used to think school was a safe place.	0	1	2	3	4
69. I have more problems with my friends since being bullied.	0	1	2	3	4
70. I have headaches since I have been bullied.	0	1	2	3	4
71. I don't feel anything.	0	1	2	3	4
72. Have more trouble with other kids than I used to.	0	1	2	3	4
73. I try and not see people that make me think about being bullied.	0	1	2	3	4
74. Have a hard time getting excited about much since I was bullied.	0	1	2	3	4
75. Since I was bullied, I don't feel like doing as much.	0	1	2	3	4
76. I knew something bad was going to happen before being bullied.	0	1	2	3	4
77. I get upset easily.	0	1	2	3	4
78. I feel guilty since being bullied.	0	1	2	3	4
79. Sometimes I feel like I'm outside my body.	0	1	2	3	4

80. I am more irritable or cranky with other people since I've been bullied.	0	1	2	3	4
81. I often talk about being bullied (several times a week).	0	1	2	3	4
82. Feelings about bullying cause trouble with my schoolwork.	0	1	2	3	4

Appendix 15 - TSCC

TSCC

These items describe things that kids sometimes think, feel, or do. Read each item, then mark how often it happens to you by drawing a circle around the correct number.

Circle **0** if it **never** happens to you.	(0)	1	2	3
Circle **1** if it happens **sometimes**.	0	(1)	2	3
Circle **2** if it happens **lots of times**.	0	1	(2)	3
Circle **3** if it happens **almost all of the time**.	0	1	2	(3)

For example, if you are late for school sometimes, you would circle the 1 for this item, like this:

Being late for school.	0	(1)	2	3

If you make a mistake or want to change your answer, do not erase. Cross out the wrong answer with an "X" and then circle the correct answer, like this:

Being late for school.	0	(~~1~~)	2	(3)

	Never	Sometimes	Lots of times	Almost all the time
1. I have bad dreams or nightmares about being bullied.	0	1	2	3
2. Scary ideas or pictures just pop into my head.	0	1	2	3
3. Remembering things that happened that I didn't like.	0	1	2	3
4. Going away in my mind, trying not to think about being bullied.	0	1	2	3
5. Remembering scary things.	0	1	2	3
6. Feeling scared of boys.	0	1	2	3
7. Feeling scared of girls.	0	1	2	3
8. Can't stop thinking about being bullied.	0	1	2	3
9. Remembering things I don't want to remember.	0	1	2	3
10. Wishing that I was never bullied.	0	1	2	3

VITA

Kristen Capaccioli

Candidate for the Degree of

Doctor of Philosophy

Dissertation: AN EXAMINATION OF SIBLING AND PEER VICTIMIZATION AND SUBSEQUENT PREDICTION OF PTSD SYMPTOMOLOGY

Major Field: Educational Psychology

Biographical:

Education:

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Completed the requirements for Master of Science in Educational Psychology at Oklahoma State University, Stillwater, Oklahoma in December, 2005.

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Title of Study: AN EXAMINATION OF SIBLING AND PEER VICTIMIZATION AND SUBSEQUENT PREDICTION OF PTSD SYMPTOMOLOGY

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Scope and Method of Study: The present study investigated the prevalence of sibling and peer victimization, the relationship between them and their relationship to Posttraumatic Stress Disorder (PTSD) symptomology. Gender and birth order were also examined with regard to sibling victimization and peer victimization. Data was collected utilizing self-report methodology from 10-14 year old students in two rural middle schools in Texas and Oklahoma.

Findings and Conclusions: Results of this study indicate prevalence rates for sibling victimization and peer victimization to be in the 16-20% range. Secondly, significant results were found for gender on both peer victimization and sibling victimization. Furthermore, a significant relationship was found between sibling victimization and peer victimization, as well as with subsequent PTSD symptomology. The current study both extends the current literature that examines sibling and peer victimization as well as contributes important findings regarding the relationship between sibling and peer victimization and the subsequent occurrence of PTSD symptomology within these victims. This is of great importance for schools and those practitioners who are working with victims of bullying. Bullying/victimization is a pervasive problem within schools throughout the world, and research conducted in this area is vital so that appropriate prevention and intervention programs can be both developed and implemented effectively, so that all students are able to develop socially and emotionally, devoid of the threat of victimization.

ADVISER'S APPROVAL: Gary Duhon, Ph.D.