

COPING STRATEGY USAGE AS A  
MODERATING VARIABLE BETWEEN  
PEER VICTIMIZATION AND  
POSTTRAUMATIC STRESS SYMPTOMATOLOGY

By

JAMES WILLIAM CROSBY

Bachelor of Science in Psychology  
Abilene Christian University  
Abilene, Texas  
2001

Master of Science in School Psychology  
Abilene Christian University  
Abilene, Texas  
2004

Submitted to the Faculty of the  
Graduate College of the  
Oklahoma State University  
in partial fulfillment of  
the requirements for  
the Degree of  
DOCTOR OF PHILOSOPHY  
July, 2008

COPING STRATEGY USAGE AS A  
MODERATING VARIABLE BETWEEN  
PEER VICTIMIZATION AND  
POSTTRAUMATIC STRESS SYMPTOMATOLOGY

Dissertation Approved:

Dr. Judy Oehler-Stinnett

---

Dissertation Adviser

---

Dr. C. Robert Davis

---

Dr. Eric Mesmer

---

Dr. Terry Stinnett

---

Dr. A. Gordon Emslie

---

Dean of the Graduate College

## ACKNOWLEDGMENTS

I would like to thank my committee members (Bob Davis, Eric Mesmer, Judy Oehler-Stinnett, and Terry Stinnett), each of whom devoted considerable amounts of both time and encouragement to me. It can certainly be said that their support has extended beyond the dissertation, and into my performance as a professional. Further, I would like to give a special thanks to my Adviser, Judy Oehler-Stinnett, whose insights helped to elucidate the data in ways that I would not have considered.

I would like to thank my parents, as I have on so many previous occasions, not only for their continuing support of any endeavor that I undertake, but also for their unquestioning monetary support of these endeavors. I only hope that I will be as generous as they have been.

Further, I would like to thank two key figures in my professional development, to whom I feel that I owe a great debt. First, is Dr. Alan Teel, professor of percussion at Abilene Christian University, who is the consummate professional and who leads others by his own example. Second, is Dr. Edwin B. Headrick, who was not only a professor and supervisor to me, but also a daily demonstration of how a psychologist should conduct him or herself in the community. His humor, unassuming persona, and uncanny ability to disarm the most cantankerous individuals were and will always be characteristics for which I strive.

Finally, I must thank my wife, Alison. She has been by my side throughout all of my graduate schooling. There are no words that could adequately express the debt that I owe to such a loving, caring, and supportive wife. Long nights under lamp light, listening to my typing, seeing only my face buried in a book or my back at a computer desk, she was encouraging, funny, insightful, generous, and just a wonderful human being.

## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.....	1
Aggression Typology and the Role of Gender in Victimization .....	2
Psychological Impact of Peer Victimization.....	4
Peer Victimization and Posttraumatic Stress .....	5
Coping Strategy Usage in Victims of Bullying .....	7
Purpose of the Study .....	9
II. REVIEW OF LITERATURE.....	11
Defining Peer Victimization .....	13
The Bully-Victim Continuum.....	15
Peer Victimization: General Issues .....	19
Reported Frequency of Peer Victimization.....	19
The Typology of Victimization: Direct and Indirect Aggression.....	20
Gender Differences in Victimization .....	20
Assessing Peer Victimization .....	22
Observational Assessment .....	22
Normative Assessment.....	23
Ipsative Assessment .....	24
Psychological impact of Peer Victimization.....	27
Peer Victimization and Posttraumatic Stress Symptomatology .....	28
Coping Strategy Usage in Victims of Bullying .....	34
Summary and Purpose of the Proposed Study.....	36
Research Questions.....	38
Hypotheses .....	39
III. METHODOLOGY .....	41
Participants.....	41
Procedure .....	41
Instruments.....	43
Social Experience Questionnaire .....	43
The Trauma Symptom Checklist .....	44

Chapter	Page
The Ways of Coping Checklist .....	45
Personal Data Information .....	46
Research Design and Statistical Analysis .....	47
Moderated Hierarchical Regression Approach .....	48
Supplemental Analyses .....	48
Additional Analyses .....	49
IV. FINDINGS.....	51
Hierarchical Moderated Regression Models.....	52
Problem-Focused—Total Sample.....	53
Seeks Social Support—Total Sample .....	53
Wishful Thinking—Total Sample.....	54
Avoidance—Total Sample.....	55
Supplemental Analyses for Peer Victimization Sub-Types.....	55
Examination of Female and Male Participants in Separate Regression Models ...	56
Additional Analysis .....	56
V. DISCUSSION .....	57
Peer Victimization and Posttraumatic Stress Symptomatology .....	58
Coping with Trauma .....	60
Approach Strategies: Seeking Social Support and Problem-Focused .....	61
Avoidant Strategies: Wishful Thinking and Avoidance .....	63
The Current Conceptualization of Coping for Victims of Bullying .....	64
Limitations of the Current Study .....	67
Future Research .....	68
Implications for Practice .....	70
Conclusion .....	72
REFERENCES .....	74
APPENDIX.....	81

## LIST OF TABLES

Table	Page
1.....	81
2.....	82
3.....	83
4.....	84
5.....	85

## CHAPTER I

### INTRODUCTION

Peer victimization has been a growing concern among professionals and parents for quite some time, and there is considerable evidence to suggest that it is a frequent experience for many children and adolescents. Negative psychosocial symptomatology is often associated with the experience of peer victimization. Furthermore, in some cases, suicides have occurred partly or mainly because of this victimization. Recent research (Smith, Schnieder, Smith, & Ananiadou, 2004) suggests that the current school wide anti-bullying interventions commonly implemented in schools are largely ineffective. These findings support the need for additional research, both on schoolwide interventions, and on the impact of bullying behaviors on those who engage in bullying as well as those who are victims of bullying. Furthermore, it is important to target those who are most severely affected, such as those at risk for posttraumatic stress disorder as well as those with poor coping mechanisms. An understanding of peer victimization and its potential impact upon children and adolescents is therefore imperative to developing more effective anti-bullying interventions, as well as to developing effective treatment modalities for victims. School psychologists, in particular, are integral figures in the development and implementation of such interventions, and it is therefore essential that they take a primary role in the research in this area.

While there are many definitions of peer victimization in the literature, most definitions include certain elements (Smith & Myron-Wilson, 1998). Generally, peer victimization may be characterized as repeated, unprovoked verbal, physical, or psychological attacks or intimidation intended to cause fear or to otherwise harm a victim (Farrington, 1993; Smith & Myron-Wilson, 1998). Additionally, an actual or perceived power differential is present between the bully and the victim. These elements also seem to be prevalent across cultures (Smith & Myron-Wilson, 1998). In much of the PV literature (e.g., Storch & Esposito, 2003) as with the current investigation, victimization is assessed via self-report instruments which elicit responses regarding the reception of behaviors of both direct and indirect aggression.

#### *Aggression Typology and the Role of Gender in Victimization*

Many researchers distinguish between the types of victimization that individuals may experience. Two main typologies may be seen throughout the literature: direct (or overt) aggression, and indirect (or relational) aggression. Relational aggression harms others through manipulation of peer relationships or friendships (e.g., through social exclusion), whereas overt aggression harms others through actual physical damage or the threat of such damage (Crick & Bigbee, 1998). The recent surge of interest in relational victimization has helped researchers to broaden their definition and conceptualization of aggression (Espelage, Mebane, & Swearer, 2004). The result has been a unique understanding of relational aggression and its role within the context of victim gender.



While historically, many studies of peer victimization include primarily male samples and a focus on aggressive (i.e., physical) victimization only, many subtle differences in victimization typology have been excluded. This failure to address alternative types of victimization has resulted in a lesser understanding of the types of aggression with which females may be involved (i.e., as victims and/or perpetrators). If therefore, the definition of aggression is expanded to include other types of aggressive acts, then the demonstrated relationships between aggression and gender would be less clear (Crick & Grotpeter, 1995; Espelage, Mebane, & Swearer, 2004). Therefore, measures of peer victimization must include both direct and indirect (i.e., relational) measures of aggressive behaviors. As this perspective has been increasingly implemented, the recent peer victimization literature has been focused upon differences in victimization experiences between genders. Much of this focus has been directed on the type of victimization or aggression (i.e., relational or overt) experienced. If differences in victimization typology do exist between the genders, intervention from professionals should be constructed accordingly.

Several studies (e.g., Crick & Bigbee, 1998) have demonstrated these differences between genders. Boys have been shown to be more overtly victimized than girls. Conversely, girls have often been shown to be more frequently relationally victimized than boys. Crick and Grotpeter (1995) posit that relational aggression may be used more often in girls' peer groups because these strategies are particularly harmful to the establishment of close dyadic ties, an important social goal for girls. However, other studies have shown no gender differences based on victimization typology. For example, Storch and Esposito (2003) found that boys and girls did not differ on their reports of

relational victimization. Clearly, the relationship between gender and victimization is in need of additional research.

### Psychological Impact of Peer Victimization

Upon examination of the literature published over recent years, one will discover the increase in studies examining psychopathological correlates of peer victimization (i.e., internalizing symptomatology, anxiety, or depression). It is not only important to ensure that these problems do not go unrecognized (Hawker & Boulton, 2000), but it is also important to note that adults' beliefs about the impact of peer victimization may impact their rate of intervention (Craig, Henderson, & Murphy, 2000). In the context of developing effective interventions, researchers must be able to effectively understand the psychological variables associated with or resulting from peer victimization to communicate this impact to parents and teachers, the primary implementers of such interventions.

Recent research has often been focused on understanding the involvement of anxiety in peer victimization experiences (Swearer, Grills, Haye, & Cary, 2004). The primary focus of much of this research has been the relationship of anxiety to victim status. These anxious behaviors have been described by many as preexisting characteristics of victims, as well as consequences of being victimized. Thus, anxious behaviors may serve to provoke victimization in that bullies see these behaviors as signs of weakness in the victim, or as signs that the victim is less likely to receive support (Swearer, et al., 2004).

Both theory and empirical evidence seem to support a hypothesis that victims may suffer more maladjustment than non-victims (Hawker & Boulton, 2000). Many theorists have argued that negative social experiences are related to the development of depression and other forms of psychosocial maladjustment. Furthermore, Hawker and Boulton (2000) highlight how certain types of maladjustment are positively related to social difficulties such as submissiveness, social withdrawal, and unpopularity, all of which are associated with peer victimization. Both males and females who report being victimized by their peers have also been shown to report higher levels of anxiety and lower self-worth than their non-victimized peers (Grills & Ollendick, 2002). In sum, while many studies yield conflicting findings about the type of pathology associated with victimization, there is sufficient evidence in the literature to suggest that many victims do experience some type of internalizing distress (e.g., Grills & Ollendick; Hawker & Boulton; Swearer et al., 2004).

### Peer Victimization and Posttraumatic Stress

While there is sufficient evidence to support the hypothesis that peer victimization is associated with greater levels psychological and psychosocial problems, little research has been conducted to support a hypothesis that victimization may also be associated with the symptoms of Posttraumatic Stress Disorder (as described in APA, 2000). There are, however, a number of reasons to hypothesize such an association (Mynard, Joseph, & Alexander, 2000). First, the experience of peer victimization includes several important characteristics (e.g., powerlessness and helplessness) that are thought to be

related to the development of posttraumatic stress (Pynoos, Steinberg, & Piacentini, 1999). Second, events involving human agency often have severe and long-lasting consequences (Joseph, Williams, & Yule, 1997). Finally, characteristics of victims, such as low self-confidence, neuroticism, and introversion have also been suggested as risk factors for the development of posttraumatic stress for those who have experienced a traumatic event (Mynard et al.).

While little research has been conducted in this area, the results of the current studies in the extant literature do support a link between peer victimization and posttraumatic stress. In a study of English students in a secondary school setting, multiple regression analyses showed that higher scores on a measure of subjective stress were predicted by victimization and the belief that social control lies with others (Mynard, Joseph, & Alexander, 2000). This relationship between peer victimization and posttraumatic stress has even been observed in adult populations. In a study in the workplace, Mikkelsen and Einarsen (2002) found a high prevalence of analogue posttraumatic stress among victims of bullying at work. While these findings do seem to support the hypothesis that victims of bullying may experience posttraumatic stress symptomatology, the number of studies in the literature on this topic are few and include primarily European samples.

In the most recent examination of these variables in school age populations, a positive relationship was found between peer victimization and posttraumatic stress. Storch and Esposito (2003) found positive relationships of medium effect size among overt and relational aggression and posttraumatic stress (PTS). (It is important to note that the terms “posttraumatic stress” or “posttraumatic stress symptomatology”

[abbreviated “PTS”] are used throughout this document [rather than “posttraumatic stress disorder”] to indicate not a diagnosis, but a continuum of severities of traumatic symptomatology.) In their sample of male and female fifth and sixth graders in an urban school setting, individuals experiencing overt or relational aggression reported significantly higher levels of posttraumatic stress symptomatology. However, it must also be considered that Storch and Esposito (2003) utilized a sample from an urban setting in which the students were reported to have a higher likelihood of having experienced another traumatic event. Nonetheless, the above studies lend support to the hypothesis that there is a link between peer victimization and posttraumatic stress.

In sum, despite the relatively few studies examining the relationship between PV and posttraumatic stress symptomatology, both theoretical and empirical support (discussed above) make their posited relationship logical. Specifically, based upon the extant literature in this area, it is posited that PV will be positively related to posttraumatic stress symptomatology. However, it is likely that this relationship is moderated by coping strategy usage in those who experience victimization. That is, those who utilize strategies such as avoidance are more likely to experience greater levels of posttraumatic stress and PV, while those who utilize strategies such as seeking social support will experience less internalizing distress and overall victimization frequency.

### Coping Strategy Usage in Victims of Bullying

In addition to the adverse psychological sequelae associated with peer victimization, researchers and practitioners must also be cognizant of the coping

strategies (both effective and ineffective) that are utilized by victims of bullying. While most victims of trauma recover, and do not develop posttraumatic symptomatology, it is plausible that the mechanism for this recovery could be the utilization of positive (i.e., effective) coping strategies. Halstead, Johnson, and Cunningham (1993) define coping as an effortful response which is designed to manage internal or external stimuli that are deemed taxing by an individual. These authors point out that coping strategies can include both cognitive and behavioral responses, and are not limited to responses which yield successful outcomes. Most of the coping research has focused upon problem-focused (attempts to manage the person-environment relationship) and emotion-focused strategies (attempts to regulate one's emotional response) (Folkman & Lazarus, 1980; Halstead et al.). However, the literature seems to support a more complex model to conceptualize coping strategies than the two factors described above (Halstead et al.).

A four factor model has been proposed (and empirically supported; e.g., see Halstead et al., 1993; Hunter & Boyle, 2004) to account for the coping strategies utilized by those experiencing stressors. These factors include Problem Focused strategies (i.e., improving oneself, taking positive action, reflective planning, and compromising), Seeking Social Support (seeking emotional or active support from others), Wishful Thinking (actively wishing for change or passively wishing [i.e., fantasizing about changing]), and Avoidance (isolating oneself, avoiding stimuli, or reporting negative affect). Furthermore, there is empirical evidence to support that coping style is associated with both victimization and psychological functioning (Hunter & Boyle). Specifically, a positive relationship has been demonstrated between victimization and the usage of Wishful Thinking and Avoidance as responses to victimization. Additionally,

Wishful Thinking and Avoidance are associated with higher levels of negative psychological adjustment (e.g., Stern & Zevon, 1990).

When viewed collectively, these results seem to support the hypothesis that coping strategy usage moderates both the frequency/intensity of victimization and the negative psychosocial outcomes associated with victimization. However, further investigation of the nature of this mediation is certainly warranted. An examination of PV, posttraumatic stress, and coping strategy usage within an overall structural model is therefore essential not only in understanding a potential moderated relationship between PV and posttraumatic stress, but also in that practitioners will be able to utilize coping strategies (that are associated with lower levels of both PV and posttraumatic stress) in the development of anti-bullying interventions.

#### Purpose of the Study

With the relative paucity of literature in understanding the posited relationship between PV and posttraumatic stress symptomatology and the plausible hypotheses for other phenomena (i.e., coping strategies) being responsible for these findings, additional attention is imperative to a further understanding of the potential impact of peer victimization when conceptualized as a traumatic event. In addition to an exploration of the psychological impact of victimization, it is important for both researchers and practitioners to gain a better understanding of the coping strategies (both effective and ineffective) used by youths who are victimized. An understanding of the relationship between peer victimization and posttraumatic stress symptomatology, along with the

posited moderating effects of coping strategies (e.g., avoidance vs. seeking social support), would likely inform intervention for decreasing both the frequency and posited (i.e., traumatic) impact of victimization.

The focus of the current study is to examine the variables of peer victimization (both direct and indirect types, along with possible differences by gender), posttraumatic stress symptomatology, and coping strategies in the context of the school. Collectively, these variables will be examined within a series of hierarchical moderated multiple regression models. Specific questions will include: 1) Do males and females differ in their reports of victimization? 2) Is PV related to coping strategy usage? 3) Is coping strategy usage related to posttraumatic stress symptomatology? Based on the extant literature in this area, it is posited that the experience of PV will be related to coping strategies, and that specific coping strategy usage will be related to posttraumatic stress symptomatology. The goal of the author is to enhance the extant peer victimization literature with a study of its impact on the psychological functioning of youth in the school setting, as well as the reported usage of coping strategies associated with both victimization and traumatic stress symptomatology.



## CHAPTER II

### REVIEW OF LITERATURE

Peer victimization (PV) has been a growing concern among professionals and parents for quite some time, and there is considerable evidence to suggest that it is a frequent experience for many children and adolescents. Unfortunately, much of the current public interest and professional research on PV in North America seems to have come as a result of school shootings such as those at Columbine High School in Littleton, Colorado. The resulting increases in the PV literature have focused on victims, bullies, as well as psychopathology present in both. An understanding of PV and its potential impact upon children and adolescents is imperative to developing more effective schoolwide anti-bullying interventions, as well as to developing effective treatment modalities for victims.

Of those who experience PV, about one half do not inform their teachers, and about one third do not tell their parents (Whitney & Smith; Rigby, 1996; cited in Smith & Myron-Wilson, 1998). These individuals often engage in self-blaming and fear retaliation from bullies (Smith & Myron-Wilson, 1998). Furthermore, in some cases, suicides have occurred partly or mainly because of this victimization. This lack of communication among victims and the professionals assigned to their care can therefore have fatal consequences. Additionally, this lack of communication to authority figures in

the lives of these children may impact the ability of researchers to effectively assess the frequency and intensity of peer victimization.

Recent research (Smith, Schnieder, Smith, & Ananiadou, 2004) suggests that the current schoolwide anti-bullying interventions commonly implemented in schools are largely ineffective. Generally, the results indicated inconsistent success rates and isolated cases of success with certain programs. The authors state that the enthusiasm for the utilization of the whole-school antibullying approach, and its incorporation into law in some areas, is likely based on the perceived need to intervene and on the few studies which indicate success. In their concluding remarks, the authors only cautiously recommend the continued use of these approaches until they can be evaluated further. The rationale for this recommendation is based not on evidence of effectiveness, but on “logical links” between the programs and theories about the origin of bullying and the isolated cases of clear success. These findings support the need for additional research, both on the interventions and on the impact of bullying on victims. It is important to note that the outcome measures for the majority of the studies of schoolwide interventions are based upon the self reports of students directly involved. While the outcome of these interventions is ultimately based upon self-reports of those who experience PV, it is important to better understand the psychological and psychosocial impact of bullying on victims.

## *Defining Peer Victimization*

The initial stages of interest and research in peer victimization began in Sweden in the late 1960's and early 1970's (Olweus, 2001) within the context of racial discrimination. School Physician P.P. Heinemann (Heinemann, 1969; Olweus) borrowed the ethological term "mobbing", which had been used to refer to a collective attack of one group of animals on another animal of another species. This term, borrowed from ethologist Konrad Lorenz, was also used by Lorenz (1968) to characterize the acts of a school class (or a group of soldiers) who ganged up against an individual who was deviating from the group (Olweus). During this time period, Dan Olweus indicated that while the idea of group "mobbing" was certainly an important construct in need of empirical attention, another aspect of these aggressive behaviors was important as well. Specifically, Olweus (2001) states that he considered it more important to address situations in which individuals are exposed to systematic aggression over extended periods of time. Therefore, in the early 1970's, Olweus initiated the first systematic research project on peer harassment and mobbing, which ultimately resulted in a Swedish book published in 1973, along with the American version of this book later (Olweus, 1978). Olweus (2001) states that the primary aim of this research was to outline the "anatomy" of peer victimization in schools and to seek answers to questions that had been of concern in the past. During this early time period, no clear definition of PV had been established. However, early attempts to assess and intervene upon PV would require some form of operational definition.

As stated by Elinoff, Chafouleas, and Sassu (2004), bullying is one of the most common and serious forms of school violence. Therefore, a full understanding (including a clear definition) is crucial in advancing research and practice in this area. The basis for many definitions of PV originates in the work of Dan Olweus, perhaps the most cited author of any in the PV literature (Elinoff et al.). As stated by Juvonen and Graham (2001), it is a rare find to discover a published article on PV which does not include references to Dan Olweus' work in its literature review. Olweus (2001, pp. 5-6) states: "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". Despite the basis of many authors' work on the early contributions of Olweus, there remain discrepancies in terminology and definitions in the study of PV.

The terms "bullying" or "peer victimization" are often used throughout the literature as if there were a specific operationalized definition on which the research community has reached a consensus (e.g., the use of "*bullies*, threatens, or intimidates others" within the DSM-IV-TR [American Psychiatric Association, 2000] as a potential diagnostic criterion for conduct disorder; Elinoff et al., 2004). Clearly, this is not the case. As is exemplified in the previously mentioned work completed by Dan Olweus (among others), PV is a subject area with diverse geographical (i.e., international) sources. One of the primary reasons for these discrepancies in terminology and definitions can be elucidated with a cross-cultural perspective. That is, the discrepancies may be due in part to the use of a non-universal vocabulary (Elinoff et al). For example, individuals in North America use the term "victimization" when referring to bullying,

while Scandinavians typically use the term “mobbing” when referring to bullying (Craig, Henderson, & Murphy, 2000; Elinoff et al.)

While there are many definitions of peer victimization in the literature, most definitions include certain elements (Smith & Myron-Wilson, 1998). Generally, peer victimization may be characterized as repeated, unprovoked verbal, physical, or psychological attacks or intimidation intended to cause fear or to otherwise harm a victim and which occur over time (Farrington, 1993; Olweus, 1993; Smith & Myron-Wilson). Additionally, an actual or perceived power differential is present between the bully and the victim. These elements also seem to be prevalent across cultures (Olweus; Smith & Myron-Wilson).

### *The Bully-Victim Continuum*

Many researchers suggest that bullying should not be conceptualized dichotomously (i.e., one is either bullied or victimized; Elinoff et al., 2004). Rather, the suggestion is to conceptualize PV along a continuum of severities as well as to have an understanding that some individuals may engage in both bullying and victim behaviors—the bully-victim (Elinoff et al.; Swearer, Song, Cary, Eagle, and Mickelson, 2001). A specific discussion of the characteristics of both bullies and victims is therefore important.

Olweus (1993) describes the distinctive characteristic of the bully as aggression towards peers. While the types of aggression will be discussed in more detail later, these can include both direct and indirect forms of aggressive behaviors. Olweus continues in

saying that “bullying can be viewed as a component of a more generally antisocial and rule-breaking (‘conduct disordered’) behavior pattern” (pp. 35). Bullying must therefore be considered in clinical diagnosis (Elinoff et al., 2004). Within the context of psychodiagnostics, PV is not in a category by itself, but rather can be found within the DSM-IV-TR (APA, 2000) diagnostic criteria for conduct disorder: the individual “bullies, threatens, or intimidates others”. It is however important to note that bullying alone does not constitute a diagnosis of conduct disorder; two additional criteria must be met (i.e., at least 3 total) beyond that of bullying. While these behaviors and characteristics of bullies are certainly an important aspect of the extant literature on peer victimization as well as the future of research in this area, the focus of the current investigation is applied to victims.

Whereas bullies may be characterized by their usage of an aggressive reaction pattern along with greater strength (i.e., power), victims of bullying are characterized primarily by an anxious reactive pattern and physical weakness (or lesser degrees of power possession; Olweus, 1993). Typical victims have been described as more anxious and insecure than other students, as suffering from low self-esteem, and as using withdrawal as a response pattern to PV (Olweus). Generally, victims have been divided into two groups, based upon their behavioral responses to victimization: the passive (or submissive) victim and the provocative victim.

Passive victims are described by Olweus (1993) as the most common victim type. Olweus states that these individuals exhibit behaviors and attitudes that communicate to others insecurity along with the impression that they will not retaliate if they are victimized in some way (e.g., attacked or insulted). In contrast, the counterpart to the

passive victim is the provocative victim. The provocative victim is characterized by both an anxious and aggressive reaction pattern. The aggressive responses of these students to provocation or victimization from peers are posited to promote further victimization by individuals or the peer group as a whole.

Regardless of victim typology, it is important that both parents and teachers be aware of certain signs that children may exhibit when they are victimized by their peers. These signs are pertinent to early identification of a problem (as will later be discussed) that can result in seriously adverse psychological sequelae. Olweus (1993) outlines several primary and secondary signs for both parents and teachers to identify victims of bullying. These signs are divided into primary and secondary categories for both teachers (e.g., at school) and parents (e.g., at home). The primary signs that one is being victimized at school include: being repeatedly teased, called names, taunted, being pushed, shoved, punched, kicked, being involved in quarrels for which they appear defenseless and from which they typically withdraw, having their belongings taken, damaged, or scattered about, having bruises, cuts or other bodily damage that cannot be given an explanation. The secondary signs that one is being victimized at school include: being alone or excluded from the peer group, trying to stay close to teachers or other adults during breaks, appearing distressed, anxious, unhappy, or fearful to speak up in class, and showing a sudden or gradual deterioration in their school work.

As was discussed earlier, it is also important that parents be cognizant of and involved in their child's experiences at school. Thus, Olweus (1993) also outlines primary and secondary characteristics for parents to utilize in deciding whether their child may be a victim of bullying. The primary signs (of victimization) that parents may

observe at home include: the child coming home with torn clothing or other damaged possessions and having bruises or other injuries that cannot be given an explanation. Additionally, secondary signs of possible victimization include: do not bring classmates home after school and rarely spend time with other classmates outside of their own home or school; are seldom invited to parties and rarely interested in arranging parties for themselves; afraid or reluctant to go to school in the mornings; poor appetite, somatic complaints in the mornings (before school); choosing routes to school that are “illogical”; poor sleep with bad dreams; loss of interest in school coupled with decreased performance; appearing unhappy, sad, or otherwise displaying abrupt shifts in mood; and requesting or stealing money from the family (to accommodate bullies requests or demands). While these lists of signs for parents and school personnel are certainly not exhaustive or diagnostic, they are important early indicators that a child is being victimized. As will become apparent throughout this investigation, early identification and intervention with victims of bullying is tremendously important in providing specific anti-bullying strategies, and thus decreasing the likelihood of the negative psychological experiences so often observed in relation to peer victimization. Further, school psychologists (and other mental health professionals) are likely to encounter youths presenting with behavior and emotional problems, and consideration or investigation into victimization should be considered in part of the overall evaluation.



## Peer Victimization: General Issues

Beyond merely defining PV, the increase in research over the past two decades has ushered in the exploration of multiple aspects of peer victimization. Among these are the issues of frequency and duration of victimization in understanding severity, a typology of victimization (e.g., direct and indirect victimization), as well as gender differences in reports of victimization. Each of these is discussed below.

### *Reported Frequency of Peer Victimization*

While there seems to be some consistency in the inclusion of certain elements in various researchers' definitions of PV, few of these aspects are specifically operationalized when attempts are made to measure PV (Kochenderfer-Ladd & Ladd, 2001). Frequency is an element (specified by phrases such as "bullied repeatedly") that is more often included in measures, and therefore seems to be considered a central component in researchers' measurement of PV. Frequency is most often assessed by asking respondents to indicate (via a Likert scale) how often (i.e., frequently) they are victimized in specified ways (e.g., hit, kicked, threatened, excluded from groups, etc.). In studies examining psychological correlates of victimization (e.g., post traumatic stress symptomatology, see Storch & Esposito, 2003), these measurement scores (often based upon frequencies) are treated as continuous variables and correlational analyses are run accordingly. In sum, frequency appears to be a key element in both the way we define and measure peer victimization.

### *The Typology of Victimization: Direct and Indirect Aggression*

Many researchers distinguish between the types of victimization that individuals may experience. Two main typologies may be seen throughout the literature: direct (or overt) aggression, and indirect (or relational) aggression. Relational aggression harms others through manipulation of peer relationships or friendships (e.g., through social exclusion), whereas overt aggression harms others through actual physical damage or the threat of such damage (Crick & Bigbee, 1998). As will be discussed later, the recent surge of interest in relational victimization has helped researchers to broaden their definition and conceptualization of aggression (Espelage, Mebane, & Swearer, 2004). The result has been a unique understanding of relational aggression and its role within the context of victim gender.

### *Gender Differences in Victimization*

While historically, many studies of peer victimization include primarily male samples and a focus on aggressive (i.e., physical) victimization only, many subtle differences in victimization typology have been excluded. This failure to address alternative types of victimization has resulted in a lesser understanding of the types of aggression with which females may be involved (i.e., as victims and/or as perpetrators). If therefore, the definition of aggression is expanded to include other types of aggressive acts, then the demonstrated relationships between aggression and gender would be less clear (Crick & Grotpeter, 1995; Espelage, Mebane, & Swearer, 2004). If these findings

are taken into account in creating a more refined definition of aggression (which would include indirect, covert, relational, or social aggression), the traditional conception that males are more aggressive would be challenged (Espelage, Mebane, & Swearer, 2004).

As this perspective has been increasingly implemented, the recent peer victimization literature has been focused upon differences in victimization experiences between genders. Much of this focus has been directed on the type of victimization or aggression (i.e., relational or overt) experienced. If differences in victimization typology do exist between the genders, intervention from professionals should be constructed accordingly. That is, if the genders experience different types of victimization and/or respond differently, the implications for assessment and intervention are great.

Several studies (e.g., Crick & Bigbee, 1998) have demonstrated these differences between genders. Boys have been shown to be more overtly victimized than girls. Conversely, girls have often been shown to be more frequently relationally victimized than boys. Relational aggression may be used more often in girls' peer groups because these strategies are particularly harmful to the establishment of close dyadic ties, an important social goal for girls (Crick & Grotpeter, 1995). Other studies have shown no gender differences based on victimization typology. For example, Storch and Esposito (2003) found that boys and girls did not differ on their reports of relational victimization. Clearly, the relationship between gender and victimization is in need of additional research. For the assessment of such relationships (regarding gender and victimization), as well as broader (generalized) assessments of victimization, researchers and practitioners have multiple choices for assessment types (e.g., normative, ipsative, etc.) as well as different instruments within each type. It is therefore important that scientists and

practitioners be aware of both the strengths and weaknesses of each type before selecting instrumentation for their individual purposes.

### Assessing Peer Victimization

The assessment of PV has taken many forms which run the full gamut from “objective” to more “subjective” measures. These include observational, normative, and ipsative assessments. As will be discussed below, each assessment type has both advantages and disadvantages which must be weighed by the researcher or practitioner in their choice of the appropriate assessment methodology(s).

#### *Observational Assessment*

Observational assessment methods may be grouped into two primary categories: unstructured and structured observations. Unstructured observations are likely the simplest format for the assessment of PV (Crothers & Levinson, 2004). Typically, the observer engages in informal conversations with teachers, students, or other agents in the child’s life to acquire helpful information about the specific contextual situations in which bullying is most likely to occur. With the use of this information, the observer then selects a time and a location in which the bullying is most likely to occur (e.g., playgrounds, hallways, and lunchrooms), and completes informal observations therein. Within these observations, the observer may elect to focus on factors such as social isolation and social withdrawal in addition to general aspects of victimization (e.g., type

of aggression occurring [verbal, physical, etc.], Crothers & Levinson). Structured observations typically include more specific information regarding the nature of the victimization occurring. Observers may elect to examine such variables such as frequency, intensity, duration, and type of victimization (e.g., direct or indirect) occurring. Structured (i.e., quantitative) data are collected within this assessment method, as opposed to the more qualitative nature of unstructured observations.

As with any method of assessing human behavior, observational assessments have both strengths and weaknesses. Observational methods can be utilized to provide assessors with unbiased information on individuals' behavior under certain circumstances (Crothers & Levinson, 2004; Pelligrini, 2001). Furthermore, they are often more economical than other forms of assessment due to the accessibility of observational materials and school personnel already possessed by schools (Crothers & Levinson). However, observations have poor correlation over time, possibly due to limited sampling of behaviors along with the situational specificity of these behaviors. Additionally, due to the covert nature of many forms of bullying, direct observations may not accurately depict the actual frequency and magnitude of peer victimization. Finally, as mentioned by Crothers and Levinson, direct observation cannot be conducted in many settings in which victimization is reported to occur, such as school bathrooms or locker rooms.

### *Normative Assessment*

Normative assessments inform the assessor about group perceptions of individuals' behavior and typically include peer ratings of behaviors or peer nominations

(Pelligrini, 2001). Peer nominations (like ipsative assessments) are advantageous over observational measures because they can provide the researcher/assessor with information that is typically inaccessible to adults (e.g., aggressive behaviors in settings such as bathrooms). With the most common form of normative assessments, peer nominations, children are provided with pictures or a roster of a particular target group (e.g., the students in their own class). Typically, students are first asked to name each student on the list, and then to nominate peers based on specified criteria (e.g., “this child often cries”, or “this child hits others often”, etc.; Crothers & Levinson, 2004; Pelligrini, 2001.) While normative assessments can be very valuable in eliciting information about group perceptions of individuals, very little information can be obtained about the students’ perceptions of their own experiences or the psychological variables associated with those experiences. Finally, one must note the ethical concerns related to sociometric assessment without follow-up procedures (in cases of high-risk indicators, such as reported suicidality). However, avenues can be put into place (such as in the current study), for individuals to seek assistance or intervention from the researchers before, during, or following administration of instrumentation.

### *Ipsative Assessment*

Ipsative measures provide assessors with information regarding the individual’s perceptions of their experiences as victims (Pelligrini, 2001). These measures include information regarding the frequency and degree to which one perceives being victimized. With self-report measures, the assessor may elect to use anonymous or non-anonymous

methods of soliciting information about victimization. However, as discussed by Pelligrini, instances of victimization are likely underreported when the respondent feels that their identity will be made known. That is, factors such as maintaining social desirability and a fear of retaliation from bullies may actually inhibit accuracy in responding to items.

Self-report measures are time and cost efficient and require little effort in administration (Crothers & Levinson, 2004). These reports provide first-person descriptions of the victimization from the child's perspective. However, it is possible that children may over-report levels of victimization when there is a discrepancy between self perception and the perception of others (see Perry, Kusel, & Perry, 1988; Crothers & Levinson, 2004). From the standpoint of concurrent validity, self-reports and reports of others (e.g., peer nominations) are generally similar due to the observable nature of aggressive acts (by children) in public settings (Pelligrini & Bartini, 2000).

While there are many measures of PV and its variants, four main measures seem to receive the most attention in the research literature. First, the Revised Olweus Bully/Victim Questionnaire (OBVQ-R; Olweus, 1996) assesses bullying and victimization within the school setting. It includes a definition of bullying at the beginning of the questionnaire, with specific questions for frequency, typology, and location of bullying, along with items regarding reporting bullying to adults, supports from adults, and methods for decreasing victimization (Olweus, 2001). Due to its coverage of the important aspects of PV, its satisfactory psychometric properties, and its author, the OBVQ-R has been deemed one of the better assessments of PV (Crothers & Levinson, 2004).

The Bully-Behavior Scale (BBS; Austin & Joseph, 1996) assesses direct bullying/victimization within the school setting (6 items total: 3 physical and 3 verbal). While internal consistency coefficients are satisfactory, this instrument has two major disadvantages. One, it does not measure relational victimization, and two, to date there are no satisfactory data on its validity. The Reynolds Bully-Victimization Scale (RBVS; Reynolds, 2003) contains a 23 item measure of victimization with satisfactory internal consistency and reliability. Although the RBVS yields a total victimization *T* score, it possesses the same major flaw as the BBS: no discrete measures of direct versus relational aggression. Within the RBVS, the assessor is instructed to qualitatively examine the individual reports (via item analysis) to better understand the nature of the victimization that the individual has reported. Clearly, this method does not lend itself to an objective quantitative analysis.

The Social Experience Questionnaire—Self Report (SEQ-SR; Crick & Grotpeter, 1996) is a self report measure of relational and overt victimization (Crothers & Levinson, 2004; Storch & Esposito, 2003). The SEQ-SR consists of 3 scales (5 items each) assessed via Likert scaling. The first scale, Relational Aggression, assesses how often peers attempt to harm or threaten relationships. The second scale, Overt Aggression, which includes measures of verbal and physical victimization. Finally, the third scale, Prosocial Attention, measures how often individuals experience prosocial acts from their peers. The SEQ-SR has yielded moderate to high reliability levels, and has been described as particularly useful in assessing typologies of victimization (i.e., overt versus relational) as well as measuring victimization in females (Crothers & Levinson). Due to its demonstrated reliability, relative brevity (i.e., 15 items), and measurement of both



relational and overt aggression, the SEQ-SR is a particularly valuable tool in the assessment of peer victimization.

As was previously stated, it is primarily the choice of the researcher (practitioner, etc.) as to which modality (or modalities) is the most appropriate for the individual(s) to be assessed. Ipsative sources of information (e.g., self-reports) provide the assessor with information on an individual's perception of their own victimization, which may be particularly valuable when attempted to identify internalizing problems associated with victimization (Pelligrini, 2001). In the case of the current investigation, correlational procedures will be utilized to test a structural equation model (SEM) of the nature of the relationship between PV, coping strategies, and posttraumatic stress symptomatology. While this investigation also includes measures focused upon (participants') indications of internalized states (i.e., posttraumatic stress symptomatology) which are measured via self-report, it is important from a methodological standpoint to measure victimization from this same (self-report) perspective. That is, to maintain consistency across measures of individual perceptions of occurrences (e.g., victimization) and reactions to (e.g., PTSD symptomatology), self-report methods will be utilized as the indicator of peer victimization levels.

### Psychological Impact of Peer Victimization

As peer victimization and its respective types and variants have been explored in the research literature over the past four decades, researchers have also turned to analyses of correlates of victimization. In particular, in the literature published over recent years

one will discover an increase in studies examining psychopathological correlates of peer victimization (i.e., internalizing symptomatology, anxiety, or depression). Within the context of intervention, it is not only important to ensure that these problems do not go unrecognized (Hawker & Boulton, 2000), it is also important to note that adults' beliefs about the impact of peer victimization may impact their rate of intervention (Craig, Henderson, & Murphy, 2000). In developing effective interventions, researchers must be able to effectively understand the psychological variables associated with or resulting from peer victimization to communicate this impact to parents and teachers, the primary implementers of such interventions.

Recent research has often been focused on understanding the involvement of anxiety in peer victimization experiences (Swearer, Grills, Haye, & Cary, 2004). The primary focus of much of this research has been the relationship of anxiety to victim status. These anxious behaviors have been described by many as characteristics of victims, as well as consequences of being victimized. Thus, anxious behaviors may serve to provoke victimization in that bullies see these behaviors as signs of weakness in the victim, or as signs that the victim is less likely to receive support (Swearer, et al., 2004).

Both theory and empirical evidence seem to support a hypothesis that victims may suffer more maladjustment than non-victims (Hawker & Boulton, 2000). Many theorists have argued that negative social experiences are related to the development of depression and other forms of psychosocial maladjustment. Furthermore, Hawker and Boulton (2000) highlight how certain types of maladjustment are positively related to social difficulties such as submissiveness, social withdrawal, and unpopularity, all of which are associated with peer victimization. Both males and females who report being victimized

by their peers have also been shown to report higher levels of anxiety and lower self-worth than their non-victimized peers (Grills & Ollendick, 2002).

Additionally, victims report higher levels of internalizing problems regardless of their exposure to relational or overt aggression (Crick & Bigbee, 1998). These authors posited that the relation between victimization and internalizing tendencies is reciprocal. This relationship, referred to as the “vicious cycle” by some authors (e.g., Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004), basically consists of an initial element of victimization, followed by internalizing symptomatology, followed by increased vulnerability, and finally, further victimization.

In their meta-analytic review of psychosocial maladjustment and peer victimization, Hawker and Boulton (2000) found that victims of peer aggression experience more negative affect and have more negative self thoughts than their non-victimized peers. While many authors indicate that victims of bullying are more fearful or anxious than others, the effect sizes yielded from the meta-analysis yielded different results. The largest effect sizes in the study were for depression, while the smallest effect sizes were for anxiety. While many studies yield conflicting findings about the type of pathology associated with victimization, there is sufficient evidence in the literature to suggest that many victims do experience some type of internalizing distress.

### Peer Victimization and Posttraumatic Stress Symptomatology

While there is sufficient evidence to support the hypothesis that peer victimization is associated with greater levels psychological and psychosocial problems, little research

has been conducted to support a hypothesis that victimization may also be associated with the symptoms of Posttraumatic Stress Disorder (PTSD; as described in APA, 2000). Broadly, PTSD is a type of anxiety disorder defined as “the reexperiencing of an extremely traumatic event accompanied by many symptoms of increased arousal and by avoidance of stimuli associated with the trauma” (pp. 429; APA). The broad symptom categories include exposure to a traumatic event, persistent reexperiencing of the event, avoidance of stimuli which are associated with the trauma or traumatic event, and increased arousal, each of which has a duration of over one month. Regarding youth populations, the American Psychiatric Association (2000) states that youth may experience distressing dreams or experience repetitive play associated with the traumatic event(s) as well as somatic symptoms such as stomachaches or headaches.

While few studies have examined the relationship between PTSD and PV, there are a number of reasons to hypothesize such an association (Mynard, Joseph, & Alexander, 2000). First, the experience of peer victimization includes several important characteristics (e.g., powerlessness and helplessness) that are thought to be related to the development of posttraumatic stress. Second, events involving human agency often have severe and long-lasting consequences (Joseph, Williams, & Yule, 1997). Finally, characteristics of victims, such as low self-confidence, neuroticism, and introversion have also been suggested as risk factors for the development of posttraumatic stress for those who have experienced a traumatic event (e.g., Evans, 2002; Evans & Oehler-Stinnett, 2006).

Within youth populations, PTSD has been associated with a number of categorical events and stressors, such as the loss of a parent (e.g., Stoppelbein & Greening, 2001),

natural disasters (e.g., Evans & Oehler-Stinnett, 2006), and child abuse (e.g., Chard, 2005). In order for parents and school personnel to accurately conceptualize peer victimization within schools (and subsequently, intervene appropriately), it must be considered under the category of school violence or harassment, rather than a singularly exclusive (developmentally appropriate) phenomenon which all children must experience. The psychological consequences, as have been (and will be) discussed, can be quite severe and long-lasting, and an accurate understanding of these consequences is imperative in increasing the likelihood that parents and school personnel will implement interventions (both with bullies and victims).

While little PV research has been conducted in the area of posttraumatic stress, the results of the current studies in the extant literature do support a link between peer victimization and posttraumatic stress. In a study of English students in a secondary school setting, multiple regression analyses showed that higher scores on a measure of subjective stress were predicted by victimization and the belief that social control lies with others (Mynard, Joseph, & Alexander, 2000). This relationship between peer victimization and posttraumatic stress has even been observed in adult populations. In a study in the workplace, Mikkelsen and Einarsen (2002) found a high prevalence of analogue posttraumatic stress among victims of bullying at work. While these findings do seem to support the hypothesis that victims of bullying may experience posttraumatic stress symptomatology, the number of studies in the literature on this topic are few and include primarily European samples.

In the most recent examination of these variables in school age populations, a positive relationship was found between peer victimization and posttraumatic stress.

Storch and Esposito (2003) found positive relationships of medium effect size among overt and relational aggression and posttraumatic stress. To measure posttraumatic stress, Storch and Esposito utilized the Trauma Symptom Checklist (TSCL; Briere, 1996) which measures a variety of posttraumatic stress symptomatology including intrusive thoughts, dissociative experiences, nightmares, and avoidance of stimuli. In their sample of male and female fifth and sixth graders in an urban school setting, individuals experiencing overt or relational aggression reported significantly higher levels of posttraumatic stress symptomatology. However, it must also be considered that Storch and Esposito utilized a sample from an urban setting in which the students were reported to have a higher likelihood of having experienced another traumatic event. Nonetheless, the above studies lend support to the hypothesis that there is a link between peer victimization and posttraumatic stress.

However, alternatives to these findings must be considered. Although no published studies have contradicted the above findings, there are other plausible hypotheses for the findings. First, it is plausible that victims of bullying possess a vulnerability to being a victim of traumatic events such as exposure to violent acts or abuse (Storch & Esposito, 2003). That is, being identified by one's peers as a victim may result in more overt displays of internalizing symptomatology such as anxiety. These displays may therefore cause a child to appear more susceptible to bullies and subsequently increase their risk of exposure to trauma. Second, it is possible that peer victimization is indirectly associated with posttraumatic stress (Storch & Esposito, 2003). That is, negative experiences with peers may cause an increase in personality variables

that increase the risk for exposure to trauma as well as cognitive appraisals that increase the likelihood of anxiety symptoms.

Further, precursor experiences such as sibling bullying may also account for (see Capaccioli, in progress) outcomes related to negative psychological sequelae. In sum, while there is the potential for multiple moderating variables which may impact the relationship between PV and PTS, the current study focuses on coping as a moderator. As coping strategies are trainable, the authors chose this potential moderator as a variable on which mental health professionals may intervene.

As was previously stated, the usage of self-report measures becomes particularly important in assessing individual perceptions of problems (i.e., peer victimization) and in assessing internalized states (e.g., posttraumatic stress symptomatology). Therefore, the usage of such assessment methodologies is appropriate in the context of the current investigation. Specifically, one instrument will be utilized in the assessment of posttraumatic stress symptoms in the participants: the Trauma Symptom Checklist (TSCL; Briere, 1996). While evidence for this relationship between PTSD and PV has been demonstrated in the literature via self-reports of youth (e.g., Storch & Esposito, 2003), it is also important to consider behavioral reactions to both victimization and trauma that may moderate their relationship. As will be discussed below, these behavioral reactions (i.e., coping strategies) can be of great use to researchers and practitioners in developing effective interventions combat victimization and, ultimately, the trauma associated therein.

## Coping Strategy Usage in Victims of Bullying

In addition to the adverse psychological sequelae associated with peer victimization, researchers and practitioners must also be cognizant of the coping strategies (both effective and ineffective) that are utilized by victims of bullying. Halstead, Johnson, and Cunningham (1993) define coping as an effortful response which is designed to manage internal or external stimuli that are deemed taxing by an individual. These authors point out that coping strategies can include both cognitive and behavioral responses, and are not limited to responses which yield successful outcomes.

Most of the coping research is focused upon problem-focused (attempts to manage the person-environment relationship) and emotion-focused strategies (attempts to regulate one's emotional response) (Folkman & Lazarus, 1980; Halstead et al., 1993). However, the literature seems to support a more complex model to conceptualize coping strategies than the two factors described above (Halstead et al.).

A four factor model has been proposed (and empirically supported; e.g., see Halstead et al., 1993; Hunter & Boyle, 2004) to account for the coping strategies utilized by those experiencing stressors. These factors include Problem Focused strategies (i.e., improving oneself, taking positive action, reflective planning, and compromising), Seeking Social Support (seeking emotional or active support from others), Wishful Thinking (actively wishing for change or passively wishing [i.e., fantasizing about changing]), and Avoidance (isolating oneself, avoiding stimuli, or reporting negative affect). Furthermore, there is empirical evidence to support that coping style is associated with both victimization and psychological functioning (Hunter & Boyle).



Specifically, a positive relationship has been demonstrated between victimization and the usage of Wishful Thinking and Avoidance as responses to victimization. Additionally, Wishful Thinking and Avoidance are associated with higher levels of negative psychological adjustment (e.g., Stern & Zevon, 1990). When viewed collectively, these results seem to support the hypothesis that coping strategy usage seems to moderate both the frequency/intensity of victimization and the negative psychosocial outcomes associated with victimization. However, further investigation of the nature of this moderation is certainly warranted. Specifically, coping strategy usage should be examined within a general structural model to test for its role as a moderating variable between peer victimization (both direct and indirect) and posttraumatic stress symptomatology.

The assessment of coping strategies seems particularly important in the assessment of variables that may moderate the effects of peer victimization on negative psychological outcomes (e.g., anxiety, depression, withdrawal, posttraumatic stress symptomatology). As discussed by Hunter and Boyle (2004), a clearer understanding of how children cope (both effectively and ineffectively) with traumatic events (such as peer victimization) will help professionals to develop more effective interventions in reducing the overall frequency and severity of PV. Due to the progress in the research literature over the past two decades, and the realization that coping models are likely more complex than two factors, the Ways of Coping Checklist (WCCL) seems the most appropriate selection for measuring reported coping strategy usage in youth populations. The WCCL is a 68 item questionnaire that assesses a variety of possible coping responses. A four factor structure has been demonstrated (see Halstead, Johnson, &

Cunningham, 1993; Hunter & Boyle, 2004) including the following factors: Problem-Solving, Seeks Social Support, Wishful Thinking, and Avoidance. Individuals respond to the items on a 4 point Likert scale from 0 (does not apply or not used) to 3 (used a great deal). Based on the extant coping literature (e.g., Cassidy & Taylor, 2005; Hunter & Boyle, 2004; Stern & Zevon, 1990), Avoidance and Wishful Thinking are posited to be positively related to both types of victimization as well as posttraumatic symptomatology. Additionally, conceptualized as active or approach strategies, Problem Solving and Seeking Social Support are posited to be negatively related to both types of victimization and posttraumatic symptomatology.

### Summary and Purpose of the Proposed Study

Peer victimization (PV) has been an increasingly disquieting topic for both researchers and professionals in psychology and education for the past two decades. The experience of peer victimization has been associated with psychopathology (e.g., internalizing distress, depression, anxiety, and posttraumatic stress), exacerbated school violence, and suicide. Both the inherent concerns for child safety in the immoderate sense, as well as more long-term concerns for psychological welfare are therefore of paramount importance to current efforts to improve the school climate. While all children who experience traumatic events (such as bullying) do not develop internalizing distress, it is important to examine which variables may be associated with lower levels of victimization and negative psychological sequelae. Of specific interest within the

trauma literature is the use of specific coping strategies and their association with lesser degrees of posttraumatic symptomatology.

An examination of the extant literature of PV, PTSD, and coping strategies will reveal relationships between each of these variables (e.g., Hunter & Boyle, 2004; Storch & Esposito, 2003). However, to the knowledge of the current investigator, no published study has examined each of these variables within an overall model. Of specific interest is the nature of the relationship of PV (conceptualized as a traumatic events or events) and posttraumatic stress, with coping strategy usage conceptualized as a moderating variable. Furthermore, if such a moderating relationship is discovered, the results would be invaluable in the development of more effective interventions for reducing both bullying and the subsequent psychopathology with which victimization has been associated.

With the relative paucity of literature in this area and the plausible hypotheses for other phenomena being responsible for the current findings, additional attention is imperative to a further understanding of the potential impact of peer victimization when conceptualized as a traumatic event. The focus of the current study is to examine the variables of peer victimization, posttraumatic stress symptomatology, and coping strategies in the context of the school. The goal of the author is to enhance the extant peer victimization literature with a study of its impact on the psychological functioning of youth in the school setting, as well as the reported usage of coping strategies associated with both victimization and traumatic stress symptomatology. Furthermore, due to noted discrepancies in the extant literature regarding gender differences in victimization experiences, these results will be examined for such differences. As was mentioned

previously, any such differences may impact professionals' approaches to intervention as well as assessment of PV, PTS, and coping strategy usage.

### *Research Questions*

Based on a review of the extant literature on PV, PTSD, and coping strategies, several specific research questions were developed. While the research questions will be answered as part of the "moderated regression model" question, they are displayed individually below. Specifically, for children ages 10 to 14 years in a public school:

1. Do the four categories of coping (as measured by the WCCL) moderate the relationship between peer victimization and posttraumatic stress symptomatology?
2. Do males and females significantly differ on their reports of PV (both direct and indirect) as measured by the Social Experience Questionnaire?
3. Is peer victimization as measured by the Social Experience Questionnaire (SEQ) related to problem-solving coping methods as measured by the Ways of Coping Checklist (WCCL)?
4. Is peer victimization as measured by the SEQ related to seeking social support as measured by the WCCL?
5. Is peer victimization as measured by the SEQ related to avoidance as measured by the WCCL?

6. Is peer victimization as measured by the SEQ related to wishful thinking as measured by the WCCL?
7. Are problem-solving coping methods as measured by the WCCL related to posttraumatic stress symptomatology as measured by the Trauma Symptom Checklist (TSCL) Total Scale Score?
8. Is seeking social support as measured by the WCCL related to posttraumatic stress symptomatology as measured by the TSCL Total Scale Score?
9. Is avoidance as measured by the WCCL related to posttraumatic stress symptomatology as measured by the TSCL Total Scale Score?
10. Is wishful thinking as measured by the WCCL related to posttraumatic stress symptomatology as measured by the TSCL Total Scale Score?

### *Hypotheses*

Based on the extant theoretical and empirical literature discussed above, specific hypotheses have been developed for the current investigation. These hypotheses comprise a theoretically based series of hierarchical moderated regression models. The individual hypotheses (including the direction of the relationships between latent variables) are displayed below.

1. Each of the four categories of coping will moderate the relationship between peer victimization and posttraumatic stress symptomatology.

2. It is posited that reports of victimization (direct or indirect) will not significantly differ based on gender.
3. Peer victimization will be negatively related to problem-solving coping methods.
4. Peer victimization will be negatively related to seeking social support.
5. Peer victimization will be positively related to avoidance.
6. Peer victimization will be positively related to wishful thinking.
7. Problem-solving coping methods will be negatively related to posttraumatic stress symptomatology.
8. Seeking social support will be negatively related to posttraumatic stress symptomatology.
9. Avoidance will be positively related to posttraumatic stress symptomatology.
10. Wishful thinking will be positively related to posttraumatic stress symptomatology.

## CHAPTER III

### METHODOLOGY

The purpose of this chapter is to describe the participants, the procedure of the study, the instrumentation, as well as the statistical analyses.

#### Participants

Participants (elicited from two rural public schools in Northern Oklahoma and Western Texas, respectively) included 244 5<sup>th</sup> through 8<sup>th</sup> grade students, ages 10 to 14, with a mean age of 11.7 years ( $SD = 1.05$ ). Gender representation was generally balanced, with 45% being female, and 55% being male. Ethnic representation was as follows: 87.6% Caucasian, 4.7% Native American, 4.7% Hispanic, 1.7% African-American, and 1.3% Asian-American.

#### Procedure

Participants were elicited from school populations in rural school districts in Oklahoma and Texas through the method of target sampling in an attempt to elicit a

stratified sample age, gender, etc. Thus, although the scope of the current study precludes a nation-wide assessment the goal of the author was to use this non-probability method to elicit a reasonably representative sample from these two states. All individuals for whom assent and consent are given were utilized as participants.

Following approval from the Institutional Review Board at Oklahoma State University, as well as approval from individual school districts, consent forms were sent home to parents in packets with the children. From the packet, the parents were asked to indicate whether or not they consent for their child to participate in a study of school bullying, and its frequency and effect on children. Written assent was also obtained from each participant prior to their completion of the measures.

The principal investigators and individual research assistants administered the assessment components to the participants as part of a combined study which also examined the impact of sibling bullying on peer victimization and posttraumatic stress. The researchers read instructions to the participants that clearly described how to utilize the Likert scale as well as how to appropriately respond to the items with circling. After the participants read and completed the questionnaires individually, the forms were collected by the researchers. In order to elicit more accurate and valid responses from the participants about the perceptions and experiences, data were collected anonymously (i.e., no names were on the protocols and, therefore, no follow-up procedures for intervention were implemented). The participants were able to indicate whether or not they would like to meet with a school professional (e.g., school counselor) regarding the contents in this study. However, no global follow-up procedures (e.g., therapy) are planned as a part of this study. This information is intended to be utilized as an initial



step in developing a more effective means for assessing and conceptualizing the effects of peer victimization in populations aged 9 to 14 (i.e., intermediate and middle school), as well as in eliciting the effective coping strategies that students report using when experiencing victimization.

## Instruments

This section is a discussion of the instrumentation for the current study. Questionnaires used with the participants include: the Social Experience Questionnaire, the Ways of Coping Checklist, the Trauma Symptom Checklist, and the personal data information form. Due to copyright concerns, the instruments are not included in the appendices. Please contact the author for any questions regarding the instruments or item content.

### *Social Experience Questionnaire*

The Social Experience Questionnaire—Self Report (SEQ-SR; Crick & Grotpeter, 1996) is a self report measure of relational and overt victimization (Crothers & Levinson, 2004; Storch & Esposito, 2003). The SEQ-SR consists of 3 scales (5 items each) assessed via Likert scaling. The first scale, Relational Aggression, assesses how often peers attempt to harm or threaten relationships. The second scale, Overt Aggression, includes measures of physical victimization. However, as verbal aggression is noted throughout the literature to be a component of PV, seven items were added (by the

principal investigators) to the SEQ to address this component. The content of these items was based on the inclusion of verbal aggression in definitions of PV throughout the literature (e.g., Farrington, 1993; Olweus, 1993; Smith & Myron-Wilson, 1998), and includes items inquiring about being victimized through threats, name-calling, and other verbally aggressive acts. Finally, the third scale, Prosocial Attention, measures how often individuals experience prosocial acts from their peers.

The SEQ-SR has yielded moderate to high reliability levels, and has been described as particularly useful in assessing typologies of victimization (i.e., overt versus relational) as well as measuring victimization in females (Crothers & Levinson). Due to its demonstrated reliability, relative brevity (i.e., 15 items), and measurement of both relational and overt aggression, the SEQ-SR is a particularly valuable tool in the assessment of peer victimization. The SEQ-SR has been utilized in studies of the relationship between posttraumatic stress symptomatology and peer victimization (see Storch & Esposito, 2003). Due to the focus on the victimization variable (i.e., direct and indirect), the Prosocial Attention subtest will not be utilized in the current investigation. For the current study, total scale scores were utilized in the analyses. These were elicited by created sum (i.e., total) scores for the direct victimization items, indirect victimization items, and all scale items, respectively.

### *The Trauma Symptom Checklist*

Consistent with Storch and Esposito (2003), posttraumatic stress symptomatology was assessed using the Posttraumatic-Stress subscale (10 items) of the Trauma Symptom

Checklist (TSCL; Briere 1996). Participants rated themselves using a Likert scale from 0 to 3 (i.e., 0=Never and 3=Almost All the Time). This subscale measures a variety of posttraumatic stress symptomatology including intrusive thoughts, dissociative experiences, nightmares, and avoidance of stimuli. The TSCL clinical scales have demonstrated good reliability (e.g., an alpha value of .93 for PTSD-Total, with an average value of .87 across clinical scales) and have demonstrated prediction of exposure to childhood sexual abuse, physical abuse, and witnessing domestic violence (Briere, et al., 2001). Individual items were adapted to orient the participants to their experiences with peer victimization, rather than global traumatic experiences. A total score was yielded by summing the responses for each of the ten items.

#### *The Ways of Coping Checklist*

The Ways of Coping Checklist (WCCL) is a 68 item questionnaire that assesses a variety of possible coping responses. A four factor structure has been demonstrated (see Halstead, Johnson, & Cunningham, 1993; Hunter & Boyle, 2004) including the following factors: Problem-Solving, Seeks Social Support, Wishful Thinking, and Avoidance. Individuals respond to the items on a 4 point Likert scale from 0 (does not apply or not used) to 3 (used a great deal). The WCCL has demonstrated satisfactory overall reliability (Cronbachs Alpha > .70) on three of the four factors (i.e., Problem Solving, Seeks Social Support, and Wishful Thinking). Avoidance however, has demonstrated poor internal consistency coefficients (e.g., < .30). Hunter and Boyle (2004) state that the

poor internal consistency on the Avoidance factor is likely due to the fact that few items are included on this factor. However, for the purposes of continuity with previous studies on this topic (e.g., Hunter and Boyle), the Avoidance factor will remain unchanged. Total scores were elicited for each of the four categories by summing item responses for each. The total scores were then centered (i.e., subtracted from the mean score for each category) prior to entry into the regression equation.

### *Personal Data Information*

The personal data information (PDI) form was designed by the investigators and asks questions concerning demographics (e.g., age, grade, gender) about the student and his/her respective family. Additionally, items from the WCCL (e.g., see Hunter and Boyle, 2004) unrelated to coping (e.g., items regarding location of bullying experiences) were included in the PDI form. These items were utilized to assess the participants' perceptions of bullying in their respective schools, including locations, adults and peer responses, and perceptions of bullying severity on their campus, among other questions. In addition to the three primary variables of interest (i.e., coping, PV, and PTS), gender was incorporated into the analyses to assist in potential differential results between males and females.

## Research Design and Statistical Analysis

The participants were administered five questionnaires, which include: the Social Experience Questionnaire—Self Report (SEQ-SR), the Trauma Symptom Checklist (TSCL), the OSU PTSD Scale, the Ways of Coping Checklist (WCCL), and the personal data information form. As this study does not employ an experimental design (i.e., participants were not randomly assigned to groups), each participant was given a prepared packet containing the materials outlined above. Prior to their distribution, these instruments were assembled in a random order to counterbalance.

Upon completion of data collection, the data were entered into SPSS for analysis. The data were examined for outliers, including the standardized residuals of the dependent variable (i.e., TSCC Total Score). Of the 244 participants, 2 cases were identified as potential outliers with standardized residuals above 2.0. However, these cases were within the range of possible response totals and indicated high levels of reported traumatic symptomatology. While these individuals certainly differ from their peers in the sample, the decision was made to retain their responses. Further, the data were examined for skewness and kurtosis, and of the 7 primary variables in the study (i.e., four coping strategies, 2 types of PV, and TSCC total score), none surpassed the absolute value of 2. Therefore, all responses were retained for these variables.

Initially, descriptive statistics were run on the sample in order to assess the various demographic characteristics of the participants. Secondly, bivariate correlations were run on the variables of interest (i.e., peer victimization as assessed by the SEQ-P, the total scores on trauma [TSCC], and each of the four coping strategy

factors). Subsequently, four consecutive moderated hierarchical multiple regression models were run (i.e., one for each of the four coping strategy categories: Problem-Solving, Seeking Social Support, Wishful Thinking, and Avoidance). In these models, the total trauma score (i.e., TSCC Total Trauma Score) was entered as the dependent variable, peer victimization total score as the predictor, and the respective (centered) coping strategy category as the moderator.

#### *Moderated Hierarchical Regression Approach*

Two blocks were entered into the regression equation to create a hierarchical moderated multiple regression model: 1) the SEQ-SR total victimization score and the centered respective coping category and 2) the interaction (product terms for each of the centered coping categories), which consisted of the product of SEQ-SR total victimization score multiplied by the respective coping category.

#### *Supplementary Analyses*

To address the question of gender differences on reports of peer victimization, a One-Way ANOVA was conducted to test for gender differences on the PV total score, the indirect victimization score, and the direct victimization score. Subsequent supplementary hierarchical moderated regression analyses were conducted (using the same model structure as that discussed above) to examine each gender individually on

each type of PV as well as each of the genders together on the two types of PV: indirect and direct.

Beyond the research questions related to moderation within the hierarchical model, it was also deemed important to elicit results for the total amount of variance accounted for when peer victimization (i.e., the SEQ-SR Total Score) and each of the coping strategy categories were entered into the regression model together. The “Enter” method was utilized for this multiple regression equation.

### *Additional Analyses*

As was previously mentioned, the demographics questionnaire contained various items that are related to the experience of peer victimization. While some of these items will be utilized in analyses it related studies, three items were particularly relevant in the context of the current study. Among questions related to the location of experienced bullying, number of bullies in the school, and others, the participants were asked: “How well do you think you can deal with bullying?”. Via Likert responding, the results indicated a negative relationship between posttraumatic stress symptomatology (i.e., TSCC Total Score) and perceived self effectiveness in dealing with PV (as assessed from the above item;  $r = -.35, p < .001$ ).

Of the 244 participants surveyed, 13.5% reported that they were victimized by peers at least once per week. Furthermore, descriptive results from two items related to witnessing bullying or bully-bystanding should be noted. First, 35% of the participants reported that adults are present at least “sometimes” when they are bullied. Sixty-six

percent reported that they have watched someone being bullied at least once during the school year (i.e., a two month time period). Further, 21% reported doing so at least once per week.



## CHAPTER IV

### FINDINGS

Prior to analysis, these data were examined for outliers or other spurious data points, which may impact the validity of these findings. Means, standard deviations, alpha coefficients of the major variables of interest (i.e., peer victimization, posttraumatic stress symptomatology, coping strategy usage) are reported in Table 1, while zero-order correlations are reported in Table 2. Each of these scales or subscales had acceptable internal consistency. As hypothesized, direct and indirect peer victimization were positively correlated with posttraumatic stress symptomatology in the total sample, with  $r$  (.63 and .64,  $p < .001$ , respectively) being higher than the relationship noted in Storch and Esposito (2003;  $r = .37$  and  $.33$ ,  $p < .001$ ).

With the relatively high level of correlation between direct and indirect victimization ( $r = .82$ ,  $p < .001$ ), the relationship between the total victimization score and posttraumatic symptomatology was also examined ( $r = .66$ ,  $p < .001$ ), and later used in *total* overall hierarchical regression models (including a combined score for direct and indirect aggression). However, as can be seen in Table 5, both indirect and direct aggression were examined separately within their own respective regression models.

As expected, Avoidance and Wishful Thinking were each positively correlated with both peer victimization and posttraumatic stress symptomatology. However, contrary to the hypothesized relationship, Problem-Solving and Seeking Social Support

were each positively related to both peer victimization and posttraumatic stress symptomatology. Please see Table 2 for more detailed information on these correlations.

Finally, direct and indirect victimization were assessed for significant differences based on gender. While the groups were found to significantly differ on indirect aggression ( $F(1, 240) = 9.615, p < .003$ ) with females reporting experiencing higher levels of indirect victimization, there were no significant differences on direct or total victimization. While the combined sample (i.e., male and female) was analyzed and reported in Table 6, male and female participants were separated and examined within individual regression models for each type of coping strategy and each of the two types of aggression (i.e., eight models for each gender; see Tables 4 and 5).

#### Hierarchical Moderated Regression Models

Four separate hierarchical regression models were constructed to examine whether the four categories of coping (i.e., problem-solving, seeking social support, wishful thinking, and avoidance) moderated the effects of the experience peer victimization on posttraumatic symptomatology. The total score from the TSCC-Adapted served as the dependent variable. After entering peer victimization (SEQ-SR Total Score) and the specific coping strategy category into the equation, respectively, the PV x coping strategy interaction was entered in the second block or model. The interaction effects were subsequently examined for significance.

### *Problem-Focused—Total Sample*

From the first block of variables entered, the main effects of SEQ-SR and WCCL-Problem-Focused account for 45.6% of the total variance ( $R^2 = .46$ ,  $F(2, 232) = 94.07$ ,  $p < .001$ ) in the regression model. Further, the results support the conceptualization of problem-solving as a moderator of the effects of PV on posttraumatic stress symptomatology ( $R^2 = .46$ ,  $F(3, 231) = 64.68$ ,  $p < .001$ ). However, this addition of the interaction product term into the equation accounts for less than an additional 1% of the variance than that accounted for by the main effects of peer victimization and problem-focused coping. As noted above, the relationships between each of these variables were not in the expected direction (i.e., each variable was positively related). That is, individuals who reported higher levels of victimization reported using problem-solving as a coping strategy more often, and further, tended to report higher levels of posttraumatic stress symptomatology than those reporting lower levels of victimization.

### *Seeks Social Support—Total Sample*

From the first block of variables entered, the main effects of SEQ-SR and WCCL- Seeks Social Support account for 47.9% of the total variance ( $R^2 = .479$ ,  $F(2, 232) = 106.48$ ,  $p < .001$ ). Further, the results support the conceptualization of seeking social support as a moderator of the effects of PV on posttraumatic stress symptomatology ( $R^2 = .493$ ,  $F(3, 231) = 74.77$ ,  $p < .001$ ). This addition of the interaction product term into the equation accounts for an additional 1.4% of the variance than that accounted for by the

main effects of peer victimization and seeking social support. As noted above, the relationships between each of these variables were not in the expected direction (i.e., each variable was positively related). That is, individuals who reported higher levels of victimization reported using seeking social support as a coping strategy more often, and further, tended to report higher levels of posttraumatic stress symptomatology than those reporting lower levels of victimization.

#### *Wishful Thinking—Total Sample*

From the first block of variables entered, the main effects of SEQ-SR and WCCL-Wishful Thinking account for 52.5% of the total variance ( $R^2 = .53$ ,  $F(2, 232) = 128.25$ ,  $p < .001$ ). Further, the results support the conceptualization of wishful thinking as a moderator of the effects of PV on posttraumatic stress symptomatology ( $R^2 = .54$ ,  $F(3, 231) = 91.94$ ,  $p < .001$ ). This addition of the interaction product term into the equation accounts for an additional 1.9% of the variance than that accounted for by the main effects of peer victimization and wishful thinking. The relationships between each of these variables were in the expected direction (i.e., each variable was positively related). That is, individuals who reported higher levels of victimization reported using seeking wishful thinking as a coping strategy more often, and further, tended to report higher levels of posttraumatic stress symptomatology than those reporting lower levels of victimization.

### *Avoidance—Total Sample*

From the first block of variables entered, the main effects of SEQ-SR and WCCL-Avoidance account for 44.2% of the total variance ( $R^2 = .44$ ,  $F(2, 232) = 91.90$ ,  $p < .001$ ). Further, the results support the conceptualization of avoidance as a moderator of the effects of PV on posttraumatic stress symptomatology ( $R^2 = .45$ ,  $F(3, 231) = 63.51$ ,  $p < .001$ ). This addition of the interaction product term into the equation accounts for an additional 1% of the variance than that accounted for by the main effects of peer victimization and avoidance. As noted above, the relationships between each of these variables were in the expected direction (i.e., each variable was positively related). That is, individuals who reported higher levels of victimization reported using avoidance as a coping strategy more often, and further, tended to report higher levels of posttraumatic stress symptomatology than those reporting lower levels of victimization.

### *Supplementary Analyses for Peer Victimization Sub-Types*

The results for the hierarchical moderated regression models for both direct and indirect peer victimization are reported in Table 6. As was mentioned previously, these analyses were conducted in order to determine whether or not coping stands as a moderating variable within the model, regardless of type of victimization. As is noted in the table, the results of these analyses support the previously noted results indicating that coping is a relationship moderator (between PV and PTS) regardless of PV sub-type.

### *Examinations of Female and Male Participants in Separate Regression Models*

The results of the hierarchical moderated regression model analyses for male and female participants (separated) are reported in Tables 4 and 5, respectively. While female participants were noted to report experiencing higher levels of indirect aggression than males, it was deemed pertinent to examine each gender individually within the regression models to assess for the moderation of the relationship between PV and PVS. Each of the models for both males and females yielded significant interaction terms (i.e., indicating significance for coping as a moderating variable between PV and PTS). These results support the results of the previously discussed regression analyses, indicating global support for the conceptualization of coping as a moderating variable.

### *Additional Regression Analysis*

As was mentioned previously, the Enter method was utilized to assess for the total amount of variance accounted for by the predictor (i.e., peer victimization) and the each of the moderators (i.e., all four coping categories) within one multiple regression equation. The main effects of SEQ-SR and each of the WCCL Coping categories together accounted for 54.8% of the total variance ( $R^2 = .55$ ,  $F(5,229) = 55.10$ ,  $p < .001$ ).

## CHAPTER V

### DISCUSSION

Within the current study, peer victimization, coping strategy usage, and posttraumatic stress symptomatology were examined within an overall model. Participants indicated that PV is a problem in their rural schools (i.e., over 13% reported that they are bullied at least once per week). In the settings from which the sample was drawn, there were no systematic anti-bullying procedures in place. Peer victimization (PV) was positively related to posttraumatic stress symptomatology (PTS), and coping strategy usage was found to be a moderating variable between PV and PTS. As will be discussed below, these results are particularly valuable not only in supporting the conceptualization of PV as a potentially significant traumatic experience for some youths, but also in providing information on revision and improvement in both individualized and school-wide approaches to reducing peer victimization and its negative sequelae.

Due to the noted inconsistencies throughout the literature in gender differences and PV reports of victimization in this sample were analyzed between genders. For direct victimization (e.g., hitting, threatening), there was not a significant difference between males and females. However, a significant difference was found between the genders on indirect aggression (e.g., exclusion from social groups), with females reporting higher rates. These findings in gender differences are in direct opposition to Storch and Esposito (2003). Specifically, those authors found that boys reported higher

rates of “overt” aggression than girls, and that there were no gender differences between genders on relational aggression.

When the total score was examined (i.e., including both types of aggression), there was not a significant difference between reports from males and females. One of the original hypotheses of the study stated that there would be no gender differences on reports of PV. This hypothesis was only partially confirmed. Therefore, while the total PV score was utilized in the overall model analyses, supplementary moderated regression analyses were conducted with female and male participants separated into two groups. Despite the aforementioned gender differences, the results (i.e., that each of the coping strategies moderated the relationship between PV and PTS) were confirmed when analyses were conducted on the two separated groups. Additional regression analyses separating the Total PV score into the two aggression subtypes (i.e., indirect and direct) also yielded results consistent with those previously mentioned. In sum, regardless of the manner in which the genders were analyzed or in which PV was entered into the regression models (i.e., total PV, indirect only, or direct only), the results suggest that coping is a moderator between PV and PTS.

### Peer Victimization and Posttraumatic Stress Symptomatology

The results of the current study are consistent with previous research on this little researched topic. Storch and Esposito (2003) undertook perhaps the most informative study on the relationship between peer victimization and posttraumatic stress symptomatology. While the relatively few studies on the topic to date were drawn from



European populations or were of single-subject design, Storch and Esposito utilized a relatively sizable American sample. Their results indicated a positive relationship between these two variables of low strength ( $r = .33$  to  $.41$ , depending on victimization type and gender). The results of the current study support the findings of Storch and Esposito, with PV being positively and moderately related to posttraumatic stress symptomatology ( $r = .66$ ). While the results suggest a similar relationship between these two variables of interest, some differences between the two studies must be discussed.

First, there are some differences between instrumentation. While Storch and Esposito (2003) utilized the SEQ-SR (Crick & Bigbee, 1998) and the TSCC Total Scale score in their analyses, the current author utilized adapted versions of each of these scales. Specifically, the SEQ-SR was expanded to include items specifically related to verbal aggression (e.g., threats, name-calling, etc.), a key component of PV in the vast majority of PV literature, was included in the instrument. While verbal aggression (an important and commonly experienced aspect of direct PV) was included in this expanded version of the SEQ-SR (as discussed previously), it could certainly be posited that this expansion is in part responsible for the larger correlation between the two variables of interest. That is, as the definition was expanded (from that of Storch and Esposito) more individuals endorsed PV items, potentially leading to a stronger relationship (from the total sample) with PTS. Despite the addition of these new but necessary items, the 23 item scale retained a high alpha level (i.e., 0.94).

Second, the TSCC was adapted from ten items broadly addressing trauma, to ten items directly assessing traumatic symptomatology related to PV. The primary purpose of this adaptation was to attempt to elicit item endorsement for symptomatology related

to PV only, as opposed to trauma experienced from other events or stimuli. While there is no certainty of clear separation of the traumatic stimuli experienced, the author posited that this more direct method of assessing distress from PV would at least yield fewer responses related to other trauma sources.

Finally, this study addressed a limitation of Storch and Esposito (2003): sampling from an urban population that was primarily Hispanic- and African-American. Specifically, this sample was drawn from a rural population. As discussed by Storch and Esposito, their sample was drawn from an area with known high crime rates. The authors further discussed the possibility that participants “were exposed to more trauma than children from other regions, for example suburban or rural neighborhoods” (pp. 95). Within a very different region and population pool (i.e., primarily Caucasian, rural population), the posited positive relationship between PV and PTS was confirmed.

### Coping with Trauma

The primary goal of this study was to examine three variables: peer victimization, coping, and posttraumatic stress (PTS) symptomatology collectively, and to determine the potential for effectiveness (or ineffectiveness) associated with a variety of coping strategies. Based upon literature reviews and examination of relevant theoretical models (e.g., Davidson & Demaray, 2007; Endler & Parker, 1990; Kochenderfer-Ladd & Skinner, 2002), it was posited that the “approach” strategies of problem-focused responses and seeking social support would be effective in reducing posttraumatic stress symptomatology and (ultimately) the individuals’ future experiences with victimization.

Further, the relatively passive or “avoidant” coping strategies of wishful thinking and avoidance were posited to be particularly ineffective methods for responding to victimization. It was posited that individuals using these approaches would experience more victimization and report higher levels of negative psychological sequelae, than those utilizing less of these strategies, and that the inclusion of these variables in regression models would positively moderate the (established) relationship between PV and PTS.

As is discussed below, these hypotheses were only partially confirmed. Specifically, the approach strategies (seeks social support and problem-focused strategies) were positively related to both PV and PTS, and additionally, moderated the relationship between these two variables. Further, wishful thinking and avoidance functioned as was hypothesized: they were each positively correlated with PV and PTS, and moderated the relationship between these two variables.

#### *Approach Strategies: Seeking Social Support and Problem-Focused*

As was noted in the previous chapter, both seeking social support and problem-focused strategies seem to moderate the relationship between PV and PTS, yet not in the expected direction. Specifically, each of these approach strategies was associated with higher levels of victimization and posttraumatic stress symptomatology. That is, as participants reported increasing levels of PV, they also reported increasing levels of approach coping and internalizing distress. Although these strategies were expected to be associated with lower levels of PV and PTS, several hypotheses regarding these

unexpected relationships must be discussed. Seeking problem-focused strategies and seeking social support are discussed within the context of their respective hierarchical regression models. As will be discussed below, it is quite plausible that “approach strategies” may not be effective for the more victimized in comparison to those who are victimized less.

Interestingly, Kochenderfer-Ladd and Skinner (2002) stated that encouraging victims to cope in ways that are really effective strategies for *non*-victims could have unintended harmful consequences. Kochenderfer-Ladd and Skinner advised that less emphasis be placed on the usage of approach strategies until more can be understood about them. Further, they advised that specific, rather than global strategies be researched, in order to determine potentially differential rates of effectiveness of victim populations. The authors questioned whether or not victimized children use approach strategies ineffectively, or if they simply are prevented from being effective by their low group status. Further, it is possible that the support systems available to victims are of less help to them than those available to non-victims. Despite the (possibly) inept social support system, victims could continue to pursue aid, only to be further victimized and develop even further internalized distress. However, additional research would certainly be needed in this area, before such conclusions could be drawn.

Finally, in regards to seeking social support, students’ perceptions of adults’ reactions to observed victimization could also influence variables such as the act of seeking support or (plausibly) increases in distress, if such support is not delivered. Within the current study, participants were asked: “How often are adults around when you are bullied?”. Thirty-five percent of the participants reported that adults are present

at least “sometimes” when they are bullied. When asked about their own observations of others being bullied, sixty-six percent reported they have watched someone being bullied at least once during the previous two months, while twenty-one percent reported watching someone being bullied at least once per week. When these results are viewed collectively, it can be surmised that victims likely perceive adults and peers as bystanders to their victimization experiences. As seeking social support was correlated with (and moderated the relationship between) PV and PTS, a cyclical pattern seems to emerge in which (despite the apparent ineffectiveness and negative internalizing sequelae), distressed victims seek the support of an at-least partially bystanding social system.

*Avoidant Strategies: Wishful Thinking and Avoidance*

The conceptualization of wishful thinking as a maladaptive method of coping with PV was supported. Consistent with Hunter & Boyle (2004), wishful thinking was positively related to frequency of experienced victimization. Furthermore, as noted by many authors (e.g., see Hunter & Boyle; Stern & Zevon, 1990, among others), the utilization of wishful thinking as a coping response is also associated with increases in psychological maladjustment. When each of these three variables was included in a moderated hierarchical regression model, the results supported the conceptualization of wishful thinking as a moderator between PV and posttraumatic stress symptomatology. That is, the usage of this response to bullying seems to be ultimately associated with even higher levels of posttraumatic stress symptomatology. The ineffectiveness of such a passive and internalized approach to responding to stressful social/environmental stimuli

is certainly plausible, and the posited positive relationships between these variables bear a great deal of face validity.

Additionally, the hypothesized positive relationship between avoidance and PV and PTS was supported, as well as the conceptualization of avoidance as a moderating variable between PV and PTS. However, these results should be interpreted with caution. As was also noted in Hunter and Boyle (2004), the avoidance subscale had poor reliability (i.e.,  $\alpha = 0.63$ ). This could certainly be due in part to the low number of items (i.e., 4) on the avoidance scale. The addition of more avoidance-related items to the WCCL would be an appropriate next-step in assessing the validity of this construct as measured by the WCCL.

The usage of avoidance seems to be commonly observed within populations suffering from posttraumatic symptomatology. By definition, this choice of coping strategy could be conceptualized as part of the psychopathological diagnosis itself. However, this approach (e.g., “Just stay away from her.”) is often encouraged by parents and teachers. It is plausible that individuals without an effective behavioral repertoire for responding to peer victimization may be even more susceptible to responding to such a passive, yet often encouraged, response to being bullied.

### *The Current Conceptualization of Coping for Victims of Bullying*

Despite current practices in applied child and school psychology, the results of this study seem to indicate that our current conceptualization of effective coping strategies for victims of bullying may be somewhat misguided. The results of this study

suggest that strategies such as seeking social support and problem-focused strategies are positively related to posttraumatic stress symptomatology. As these are approaches often suggested by school professionals and parents, it is pertinent that we further examine the usage of such strategies within victimized populations.

Two primary (and related) issues come to the fore, when exploring the literature and theories related to coping with bullying. These include perceptions of self-effectiveness and *actual* effectiveness in responding to bullying. If victims of bullying are actively implementing coping strategies recommended by parents, teachers, and other adult agents, yet these children perceive their own coping effectiveness as inadequate, it is plausible that such dissonance could result in higher rates of internalizing distress. Further, it is certainly possible that victims may qualitatively differ from non-victims, or at least, those who are rarely victimized. In this regard, sets of effective coping strategies may be different for victims, either partially or entirely, than those prescribed for individuals on the “non-victim” end of the continuum.

Finally, the results indicated a negative relationship between posttraumatic stress symptomatology (i.e., TSCC Total Score) and perceived self effectiveness in dealing with PV (as assessed by the expanded demographics questionnaire). This finding is particularly important in attempting to understand the relationships between coping and internalizing distress. As was previously discussed, approach coping methods and PTS were positively related. When these coping strategies are viewed within the collective model, they could certainly be labeled as ineffective for victims. Despite a posited and reported relationship between perceived ineffectiveness and PTS (see results section above), it seems that victims report continuing use of these strategies.

Youths in schools are often encouraged to utilize approach strategies (i.e., to problem-solve, or to “tell the teacher”) when victimized. However, such guidance may not be helpful for all members of the school population, particularly when part of a generalized approach to bully-prevention. As was discussed previously, some victims may use approach strategies ineffectively or they may not be allowed to be effective due to their low group status. Furthermore, it should be considered that victims simply lack the basic social skills required to implement strategies trained through school-wide (or other) approaches.

Fox and Boulton (2005) found that victims, peers, and teachers perceived significant social skills deficits in victim populations, and further, that victims reported significant difficulty in generalizing their newly learned social skills beyond social skills training groups. In addition to potential difficulties that victims may experience in implementing effective coping strategies for bullying, some school environments are particularly unsupportive for those wishing to report victimization. In some cases adults or other school personnel may consider the reports “tattling”, and in others cases issue the same consequence to all parties involved because of the classification of victimization as a “fight”.

Despite these potential problems, there are some approaches (with empirical support) that could be implemented by school psychologists and other personnel working with youths that may benefit not only victims, but youths and adults throughout the school environment (e.g., see Hirschstein, Edstrom, Frey, Snell, & MacKenzie, 2007). Rather than focusing solely on punitive (and reactive) responses to bullies and general social-skills curricula for victims, such approaches should utilize methods for increasing



intervention from adults (i.e., including increases in presence in areas with high rates of PV), school-wide instruction on behavioral responses to prevent or mitigate bullying, and giving *individualized* training for students involved in bullying interactions (i.e., victims, bullies, and bystanders). One such program that implements these elements is the *Steps to Respect* program (Committee for Children, 2001), which will be discussed below.

### Limitations of the Current Study

While the findings of this study are certainly informative, there are limitations that must be highlighted. First, the sample is particularly homogeneous. Specifically, as was noted previously, over 87% of the participants described themselves as Caucasian. While this is generally representative of the geographic region from which the sample was taken, the results cannot necessarily be generalized to other regions and areas which may contain a more culturally diverse population. Similarly, it should be noted that the sample was drawn from rural areas. Therefore, the results may only be generalizable to other, similarly rural areas. However, it should be noted that one of the primary limitations of Storch and Esposito (2003) was that the sample was drawn from an urban population. In this respect, this study has contributed to a known area of deficiency in the peer victimization/trauma literature. Furthermore, a search of the broader literature on peer victimization will yield very few studies with specifically rural samples.

Further, it is important to note that some of the scales used in this study do not have full national norms and are experimental instruments. Due to the variables of interest, and the author's desire to assess each of the major constructs in a manner

consistent with both past research *and* theory, some of the instruments were adapted. Within the SEQ-SR (Crick & Bigbee, 1998), items were added to assess verbal aggression. Finally, within the TSCC (Briere, 1996), the items were adapted to specifically address traumatic reactions to bullying. While these scales were adapted, the author posits that the adaptation were necessary in order to adequately assess the variables of interest within the context of the hierarchical models.

Finally, concerns regarding self-reporting of victimization must be addressed. In a discussion of the difficulties with assessing PV, Davidson and Demaray (2007) report concerns with self-report measures of bullying. Specifically, an exact definition of bullying has not reached consensus within the professional literature, and thus, convergent validity could be in question when choosing one assessment instrument over another. However, the current measurement of PV (i.e., the SEQ-SR) was chosen as the basis for assessment of victimization experiences, which is heavily founded in the most widely utilized definition of peer victimization as created by Dan Olweus. Further, the advantages to the usage of self-report measures in large sample studies far outweigh the concerns. When conducting a study focused on perceived experiences and indications of internalizing distress, such an approach is particularly valuable (Leff, Power, & Goldstein, 2004).

### Future Research

When examining the relationships between the primary variables of interest in this study, it is plausible that the current manner in which we conceptualize (and teach)

coping strategies may not be effective for all victims of bullying. Many victims may lack to behavioral repertoire to effectively implement coping strategies, or social characteristics of victims may mitigate the effectiveness of their efforts. While victims should not be expected to be entirely accountable for the victimization that they experience, professionals should advance in the development of social-systemic and ecological variables that could be adapted to reduce victimization who seem much less able to cope effectively. Two particularly interesting findings of this study were the relatively high percentage of individuals reporting that adults are present when bullying occurs, but also that many individuals observe (i.e., as “bystanders”) bullying quite often. While research in each of these areas is increasing, additional efforts are certainly necessary.

Certainly, the indications from the participants in this study that adults are often present when bullying occurs is quite concerning. While teachers were not surveyed in this study, it is important to know whether teachers confirm the participants’ reports, or whether they are unaware that victimization is on-going. Additionally, the teachers perceptions of what constitutes bullying could be quite divergent from the definition utilized by the current authors and other researchers throughout the PV literature. Specifically, there could be a hierarchy of concerns about victimization, wherein teachers and parents attribute physical aggression the most concern, and verbal and relational aggression the least (or no) concern. However, further research comparing differential perceptions of the frequency, intensity, etc. of peer victimization, along with the perceived sequelae of victimization should be undertaken. It is not only important to assess perceived seriousness of specific types of victimization, but also to elicit

information about the likelihood of intervention. It is certainly possible that some adults may, in effect, be bystanders themselves because of a lack of skills for intervening, or (possibly) themselves in fear of perpetrators.

As Gini, Albiero, Benelli, and Altoe (2008) noted in their discussion of bully bystanding, while adolescents often disapprove of bullying and sympathize with victims, they often do very little to assist their peers or notify adults. Gini et al. further suggested that professionals should train observers (i.e., bystanders) to take action against victimization, using methods that are effective and safe. While assertiveness training is sometimes used with victim populations, it is suggested that such trainings also be utilized throughout the school population could also benefit from learning such techniques. Such approaches could be very effective in improving the school climate in a method that places less emphasis on the individual victim's responsibilities in reactive responding to such a distressing stimulus.

### *Implications for Practice*

The results of this study also yielded several implications for practice. As these results are supportive of the conceptualization of PV as a potentially serious and traumatic stressor in the lives of some youths, PV should certainly be considered within evaluations of students reporting internalizing distress. Further, these results indicate that not only are more individualized approaches to treatment necessary for victims of bullying, but also adaptations to school wide approaches would be of benefit to the school climate as a whole. Despite reported implementation of problem-solving skills

and seeking social support, these coping skills were positively related to both PV and PTS.

*Steps for Respect* (Committee for Children, 2001) is one school-wide program that addresses many of the intervention elements that seem to be lacking in the participants sampled in this study. It includes three primary components: whole-school components (e.g., staff training and anti-bullying policies and procedures, etc.), classroom lessons (e.g., learning to identify bullying behaviors, teaching specific bully-prevention skills to students, practicing skills for emotion regulation, etc.), and individual interventions (e.g., eliciting student reports on bullying, coaching parties involved in PV, etc.). In their study of the implementation of this program, Hirschstein et al. (2007) found reductions in antisocial behavior, with teachers reinforcing the use of acquired skills “in the moment” (pp. 15). Further, teacher coaching of skills was associated with lower levels of destructive bystander behaviors.

Such a multi-level approach is certainly beneficial, especially for a system wherein adults and other students are reported to be present when victimization occurs. Not only are school-side expectations established, but all children are trained in techniques for reducing victimization and bully-bystanding. Further, individualized approaches, including specialized social skills training and support, are implemented to victims as well as individuals who may exhibit bullying behaviors. Therefore, rather a “blanket” approach of a reactive nature, a multi-tiered and proactive approach addresses all individuals in the system.

## Conclusion

The results of this study support the position that peer victimization is associated with significant internalizing distress in some youths, and that neither avoidant nor approach strategies seem to be effective for these individuals. In fact, the usage of these strategies seems to be associated with even higher levels of distress, perhaps because of their real and/or perceived ineffectiveness. These results are particularly beneficial to the extant peer victimization literature for two primary reasons. First, very little research has been conducted to assess the relationship between PV and PTS. These results add to and support the limited research on this topic. Second, these results provide an insight into the need for improvements in more thorough and individualized approaches to decreasing peer victimization in schools. However, additional research in this area (with the assessment of each of these three areas) across cultural and demographic characteristics must be undertaken.

These results are indicative of not only significant rates of bullying within two rural school campuses, but also of an alarming relationship between victimization and posttraumatic stress. Furthermore, these results indicate that many students not only report that adults are present when bullying occurs, but a significant portion also actually observe the bullying themselves on a fairly regular basis. Therefore, school climates and expectations for social support *must* improve. While it is unclear whether or not approach strategies *could* be effective for victims in some form or fashion, adult and bystander intervention could certainly have a positive impact not only the functioning of individual victims, but also on the school climate as a whole. Undertaking this endeavor

seems the next logical step, as it seems a highly salient issue in improving the social milieu and quality of life for youths in a variety of settings.

## REFERENCES

- Aguinis, H. (2004). *Regression analysis for categorical moderators*. New York: Guilford Press.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4<sup>th</sup> ed.—Text Revision). Washington, D.C.: Author.
- Briere, J. (1996). *Professional Manual for the Trauma Symptom Checklist*. Odessa, FL: Psychological Assessment Resources.
- Briere, J., Johnson, K., Bissada, A., Damon, L., Crouch, J., Gil, E., Hanson, R., & Ernst, V. (2001). The Trauma Symptom Checklist for Young Children (TSCYC): Reliability and association with abuse exposure in a multi-site study. *Child Abuse & Neglect*, 25, 1001- 1014.
- Cassidy, T. & Taylor, L. (2005). Coping and psychological distress as a function of the bully victim dichotomy in older children. *Social Psychology of Education*, 8, 249-262.
- Chard, K.M. (2001). An evaluation of cognitive processing therapy for the treatment of posttraumatic stress disorder related to childhood sexual abuse. *Journal of Consulting and Clinical Psychology*, 73(5), 965-971.
- Committee for Children. (2001). *Steps to respect: A bullying prevention program*. Seattle, WA: Author.



- Craig, W.M., Henderson, K., & Murphy, J.G. (2000). Prospective teachers' attitudes toward bullying and victimization. *School Psychology International, 21*, 5-21.
- Crick, N.R. and Bigbee, M.A. (1998). Relational and overt forms of peer victimization: A multi-informant approach. *Journal of Consulting and Clinical Psychology, 66*, 337-347.
- Crick, N.R., & Grotpeter, J.K. (1995). Relational aggression, gender, and social psychological adjustment. *Child Development, 66*, 710-722.
- Crothers, L.M., & Levinson, E.M. (2004). Assessment of bullying: A review of methods and instruments. *Journal of Counseling and Development, 82*, 496-503.
- Davidson, L.M., & Demaray, M.K. (2007). Social support as a moderator between victimization and internalizing-externalizing distress from bullying. *School Psychology review, 36* (3), pp. 383-405.
- Dill, E.J., Vernberg, E.M., Fonagy, P., Twemlow, S.W., & Gamm, B.K. (2004). Negative affect in victimized children: The roles of social withdrawal, peer rejection, and attitudes toward bullying. *Journal of Abnormal Child Psychology, 32*(2), 159-173.
- Elinoff, M.J., Chafouleas, S.M., & Sassu, K.A. (2004). Bullying: Considerations for defining and intervening in school settings. *Psychology in the Schools, 41*, 887-897.
- Endler, N.S., & Parker, J.D.A. (1990). Multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology, 58*, 844-854.
- Espelage, D.L., Mebane, S.E., Swearer, S.M. (2004). Gender differences in bullying: Moving beyond mean level differences. In D.L. Espelage & S.M. Swearer (Eds.),

- Bullying in american schools: A social ecological perspective on prevention and intervention* (pp. 15-35). Mahwah, NJ: Erlbaum.
- Espelage, D.L., & Swearer, S.M. (Eds.). (2004). *Bullying in american schools: A social ecological perspective on prevention and intervention*. Mahwah, NJ: Erlbaum.
- Evans, L.G. (2003). Theoretical constructs of posttraumatic stress disorder as assessed in children in a natural disaster involving tornadoes in their communities (Doctoral Dissertation, Oklahoma State University, 2003). *Dissertation Abstracts International*, 64, 951.
- Evans, L.G., & Oehler-Stinnett, J. (2006). Structure and prevalence of PTSD symptomatology in children who have experienced a severe tornado. *Psychology in the Schools*, 43, 283-295.
- Farrington, D.P. (1993). Understanding and preventing bullying, In M. Tonry, & N. Morris (Eds.), *Crime and justice: An annual review of research* (Vol. 17). Chicago: University of Chicago Press.
- Folkman, S., & Lazarus, R. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21, 219-239.
- Fox, C.L. & Boulton M.J. (2005). The social skills problems of victims of bullying: Self, peer, and teacher perceptions. *British Journal of Educational Psychology*, 75, 313-328.
- Gini, G., Albiero, P., Benelli, B., & Altoe, G. (2008). Determinants of adolescents' active defending and passive bystanding behavior in bullying. *Journal of Adolescence*, 31, 93-105.

- Grills, A.E., & Ollendick, T.H. Peer victimization, global self-worth, and anxiety in middle school children. *Journal of Clinical Child and Adolescent Psychology*, 31(1), 59-68.
- Halstead, M., Johnson, S.B., Cunningham, W. (1993). Measuring coping in adolescents: An application of the ways of coping checklist. *Journal of Clinical Child Psychology*, 22, 337-344.
- Hawker, D.S., & Boulton, M.J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry*, 41(4), 441-455.
- Heinemann, P.P. (1969). Apartheid. *Liberal Debatt*, 2, 3-14.
- Hirschstein, M.K., Edstrom, L., Frey, K.S., Snell, J.L., & MacKenzie, E.P. (2007). Walking the talk in bullying prevention: Teacher implementation variables related to initial impact of the steps to respect program. *School Psychology Review*, 36, 3-21.
- Hunter, S.C., & Boyle, J.M.E. (2004). Appraisal and coping strategy use in the victims of school bullying. *British Journal of Educational Psychology*, 74, 83-107.
- Joseph, S., Williams, N., & Yule, W. (1997). *Understanding posttraumatic stress: A psychological perspective on PTSD and treatment*. Chichester: Wiley.
- Kochenderfer-Ladd, B., & Ladd, G.W. (2001). Variations in peer victimization: Relations to children's maladjustment. In J. Juvonen & S. Graham (Eds.), *Peer Harassment in School: The Plight of the Vulnerable and Victimized* (pp. 25-48). New York: The Guilford Press.

- Kochenderfer-Ladd, B., & Skinner, K. (2002). Children's coping strategies: moderators of the effects of peer victimization? *Developmental Psychology, 38* (2), 267-278.
- Leff, S.S., Power, T.J., Goldstein, A.B. (2004). Outcome measures to assess the effectiveness of bullying-prevention programs in the schools. In D.L. Espelage & S.M. Swearer (Eds.), *Bullying in American Schools* (pp. 269-293). Mahwah, NJ: Lawrence Erlbaum Associates.
- Mynard, H., Joseph, S., & Alexander, J. (2000). Peer-victimisation and posttraumatic stress in adolescents. *Personality and Individual Differences, 29*, 815-821.
- Mikkelsen, E.G., & Einarsen, S. (2002). Basic assumptions and symptoms of post traumatic stress among victims of bullying at work. *European Journal of Work and Organizational Psychology, 11*(1), 87-111.
- Olweus, D. (1978). *Aggression in the schools: Bullies and whipping boys*. Washington, DC: Hemisphere Press (Wiley).
- Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention program. In D.J. Peplar & K.H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 411-448). Hillsdale, NJ: Erlbaum.
- Olweus, D. (1993). *Bullying at School*. Cambridge: Blackwell Publishers.
- Olweus, D. (1996). *The Revised Olweus Bully/Victim Questionnaire*. Mimeo, Research Center for Health Promotion (HEMIL), University of Bergen, Norway.
- Pelligrini, A.D. (2001). Sampling instances of victimization in middle school: A methodological comparison. In J. Juvonen & S. Graham (Eds.), *Peer Harassment*

- in School: The Plight of the Vulnerable and Victimized* (pp. 125-144). New York: The Guilford Press.
- Pelligrini, A.D., & Bartini, M. (2001). A empirical comparison of methods of sampling aggression and victimization in school settings. *Journal of Educational Psychology, 92*, 360-366.
- Perry, D.G., Kusel, S.J., & Perry, L.C. (1988). Victims of peer aggression. *Developmental Psychology, 24*, 807-814.
- Pynoos, R.S., Steinberg, A.M., Piacentini, J.C. (1999). Developmental psychopathology of childhood traumatic stress and implications for associated anxiety disorders. *Biological Psychiatry, 46*, 1542-1554.
- Rigby, K. (1996). *Bullying in schools and what to do about it*. Melbourne: Australian Council for Educational Research.
- Smith, D.J., Schneider, B.H., Smith, P.K., & Ananiadou. (2004). The effectiveness of whole school antibullying programs: A synthesis of evaluation research. *School Psychology Review, 33*(4), 547-560.
- Smith, P.K., & Myron-Wilson, R. (1998). Parenting and school bullying. *Clinical Child Psychology and Psychiatry, 3*(3), 405-417.
- Snook, P.A. (2001). A comparison of traumatic symptomatology of the My Worst Experience and My Worst School Experience Scales (Doctoral Dissertation, Temple University, 2000). *Dissertation Abstracts International*, AAT 9990354.
- Stern, M., & Zevon, M.A. (1990). Stress, coping, and family environment: The adolescent's response to naturally occurring stressors. *Journal of Adolescent Research, 5*, 290-305.

- Stevens, J. (1996). *Applied multivariate statistics for the social sciences*. Mahway, New Jersey: Lawrence Erlbaum Associates, Inc.
- Storch, E.A., & Esposito, L.E. (2003). Peer victimization and posttraumatic stress among children. *Child Study Journal*, 33(2), 91-98.
- Swearer, D.E., Grills, A.E., Haye, K.M., & Cary, P.T. (2004). Internalizing problems in students involved in bullying and victimization: Implications for intervention. In D.L. Espelage & S.M. Swearer (Eds.), *Bullying in american schools: A social ecological perspective on prevention and intervention* (pp. 63-83). Mahwah, NJ: Erlbaum.
- Swearer, S.M., Song, S.Y., Cary, P.T., Eagle, J.W., & Mickelson, W.T. (2001). Psychosocial correlates in bullying and victimization: The relationship between depression, anxiety, and bully/victim status. *Journal of Emotional Abuse*, 2, 95-121.
- Whitney, I., Smith, P.K. (1993). A survey of the nature and extent of bully/victim problems in junior/middle and secondary schools. *Educational Research*, 35, 3-25.

APPENDICES

TABLE 1

	Mean	Standard Deviation	Alpha
SEQ—SR	44.87	19.45	0.94
TSCC	5.40	6.46	0.90
WCCL Wishful Thinking	21.49	8.55	0.90
WCCL Seeks Social Support	11.60	4.72	0.82
WCCL Problem-Focused	30.01	9.92	0.87
WCCL Avoidance	8.71	3.23	0.63

TABLE 2

Correlation Coefficient for Major Variables of Interest

	SEQ-SR	TSCC— Total Score	WCCL Problem- Solving	WCCL Seeking Social Support	WCCL Avoidance	WCCL Wishful Thinking
SEQ-SR	1.00	.659*	.337*	.288*	.423*	.536*
TSCC— Total Score	--	1.00	.357*	.388*	.361*	.609*
WCCL Problem- Solving	--	--	1.00	.757*	.585*	.724*
WCCL Seeking Social Support	--	--	--	1.00	.445*	.628*
WCCL Avoidance	--	--	--	--	1.00	.648*
WCCL Wishful Thinking	--	--	--	--	--	1.00

\* = Coefficient is significant at the .01 level.



TABLE 3

## Moderating Effects of Coping for Males: Direct and Indirect Victimization

Interaction Term	<i>R</i> Square Model 1	<i>R</i> Square	df	<i>F</i>	Sig.
Problem Solving X Direct	.451	.462	(3,125)	35.848	.000
Problem Solving X Indirect	.435	.444	(3,125)	33.320	.000
Social Support X Direct	.499	.536	(3,125)	48.220	.000
Social Support X Indirect	.464	.492	(3,125)	40.359	.000
Wishful Thinking X Direct	.510	.520	(3,125)	45.224	.000
Wishful Thinking X Indirect	.492	.501	(3,125)	41.906	.000
Avoidance X Direct	.413	.429	(3,125)	31.322	.000
Avoidance X Indirect	.409	.437	(3,125)	32.339	.000
<i>n</i> = 128					

\* Indicates data for first model, which included main effects for victimization and coping  
 \*\*Indicates data for second model, which includes the interaction term (or information on moderation). *df* , *F*, and Sig. values are for Model 2.

TABLE 4

Moderating Effects of Coping for Females: Direct and Indirect Victimization

Interaction Term	<i>R</i> Square* Model 1	<i>R</i> Square**	df	<i>F</i>	Sig.
Problem Solving X Direct	.455	.456	(3,101)	28.187	.000
Problem Solving X Indirect	.417	.418	(3,101)	24.154	.000
Social Support X Direct	.467	.469	(3,101)	29.713	.000
Social Support X Indirect	.419	.426	(3,101)	25.027	.000
Wishful Thinking X Direct	.534	.553	(3,101)	41.703	.000
Wishful Thinking X Indirect	.474	.518	(3,101)	36.227	.000
Avoidance X Direct	.452	.452	(3,101)	27.787	.000
Avoidance X Indirect	.417	.423	(3,101)	24.689	.000
<i>n</i> = 104					

\* Indicates data for first model, which included main effects for victimization and coping.

\*\*Indicates data for second model, which includes the interaction term (or information on moderation). *df* , *F*, and Sig. values are for Model 2.

TABLE 5

## Moderating Effects of Coping for Total Sample: Direct and Indirect Victimization

Interaction Term	<i>R</i> Square* Model 1	<i>R</i> Square**	df	<i>F</i>	Sig.
Problem Solving X Direct	.424	.426	(3,231)	57.116	.000
Problem Solving X Indirect	.431	.434	(3,231)	59.057	.000
Social Support X Direct	.457	.474	(3,231)	69.386	.000
Social Support X Indirect	.441	.457	(3,231)	64.843	.000
Wishful Thinking X Direct	.515	.538	(3,231)	89.838	.000
Wishful Thinking X Indirect	.497	.523	(3,231)	84.520	.000
Avoidance X Direct	.406	.419	(3,231)	55.641	.000
Avoidance X Indirect	.425	.440	(3,231)	60.499	.000

\* Indicates data for first model, which included main effects for victimization and coping.

\*\*Indicates data for second model, which included the interaction term (or information on moderation). *df* , *F*, and Sig. values are for Model 2.

VITA

James William Crosby

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE EFFECTIVENESS OF BEHAVIORAL PARENT TRAINING IN THE  
TREATMENT OF CONDUCTS PROBLEMS IN CHILDREN AND  
ADOLESCENTS: A META-ANALYSIS

Major Field: Educational Psychology (Emphasis: School Psychology)

Biographical:

Education:

Bachelor of Science in Psychology at Abilene Christian University, Abilene,  
Texas in May, 2001.

Master of Science in School Psychology at Abilene Christian University,  
Abilene, Texas in May, 2004.

Doctor of Philosophy in Educational Psychology (Emphasis: School  
Psychology) at Oklahoma State University, Stillwater, Oklahoma in July, 2008

Name: James William Crosby

Date of Degree: July, 2008

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: COPING STRATEGY USAGE AS A MODERATING VARIABLE  
BETWEEN PEER VICTIMIZATION AND POSTTRAUMATIC STRESS  
SYMPTOMATOLOGY

Pages in Study: 85

Candidate for the Degree of Doctor of Philosophy

Major Field: Educational Psychology, Emphasis: School Psychology

Scope and Method of Study:

Peer victimization, a growing concern in schools across the country, has been associated with a number of negative psychological sequelae. An area of particular concern with limited research is that of the presence of posttraumatic stress symptomatology in some victims. This study examines the relationship between reported victimization and posttraumatic stress symptomatology. Of further interest is the moderating impact of coping strategy usage on this relationship. Data were elicited from a sample of 244 fifth through eighth grade students in two rural Oklahoma and Texas schools, and examined through a series of moderated hierarchical regression models.

Findings and Conclusions:

Consistent with the relatively few studies in the extant literature, peer victimization was positively related to posttraumatic stress. Further, the results supported the conceptualization of coping strategy usage as a moderating variable between peer victimization and posttraumatic stress symptomatology. However, both avoidant and approach coping strategies were positively related to victimization and posttraumatic stress. These findings are discussed within the context of school climate and the individual psychosocial functioning of victims. Suggestions for further research and implications for practice are discussed.

ADVISER'S APPROVAL: Judy Oehler-Stinnett, Ph.D.

---