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Department of Counselor Education, Counseling Psychology, and Rehabilitation Services

**RELATIONSHIP OF BYSTANDER PERSONAL, SITUATIONAL,
AND PSYCHOLOGICAL FACTORS
TO BEHAVIORAL REACTIONS TO SCHOOL BULLYING**

A Thesis in

Counselor Education

by

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ABSTRACT

This study explored the relationship between personal, situational, and psychological variables and behavioral reaction of bystanders to school bullying. The study also examined the mediating role of psychological variables between bystander behavioral reactions and personal/situational variables. Hierarchical regression analysis with categorical regression was used to test a model predicting bystander behavior by studying a sample of 298 college students who had witnessed bullying during middle or high school. Results revealed that significant predictors of bystander behavior included: gender and past experience as a bully or bully-victim in personal variables; bullying type, presence of others and closeness to bully or victim in situational variables; and state anxiety and trauma in psychological variables. Mediation analysis showed that the psychological variables were not identified as mediators between bystander personal/situational variables and behavioral reaction. Limitations of this study and implications for research and practice were also discussed.

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DEDICATION

This dissertation is dedicated to my father, Munsan Oh, and my mother, Jeongyoon Kwon. You provided me with an intellectual heritage, and witnessing your life as your son helped me to maintain confidence. Father, although you passed away when I was young, you have been always in my mind and gave me courage when I intellectually challenged. Mother, I was inspired by the spirit you have shown as a single mother to your three sons. Your love and existence has enabled me to realize my dreams. Thank you for being my parents.

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Chapter One

Introduction

School bullying as a form of physical, verbal, or social aggression in schools is the most widely practiced forms of aggressive behaviors in American schools (Oliver, Hoover, & Hazler, 1994) and it has been identified as being increased in prevalence (Batsche & Knoff, 1994; Espelage & Swearer, 2003). The initial national investigation of school bullying in U.S. yielded that 30% of over 15,000 adolescents between 6 and 10 had experienced moderate or frequent involvement in bullying as a bully (13%), as a victim (11%), or both (6%) (Nansel, et al., 2001). Bullying is also a problem which is receiving increasing attention worldwide and the research has been international in scope (Carney & Merrell, 2001; Smith et al., 2002; Smith, Nika & Papisideri, 2004).

Bullying among adolescents is increasingly getting more attention in terms of its impact on their well-being and social functioning (Nansel, et al., 2001), and there is considerable evidence that bullying can contribute to long-term problems as well as immediate negative psychological impacts (Smith & Sharp, 1994). Victims of bullying have been found to experience emotional problems such as depression, low self-esteem (O'Moore & Kirkham, 2001), suicidal ideation (Mills, Guerin, Lynch, Daly, & Fitzpatric, 2004; Roland, 2002), and psychosomatic complaints (Carney, 2000; Williams, Chamgers, Logan, & Robinson, 1996). The substantial prevalence of school bullying and its significant immediate and potential long-term negative outcomes increase the importance of research on bullying.

There has been considerable research done related to bullying, and most of it has

focused on the direct bullies and victims, while bystanders have received relatively less attention (Hazler, 1996; Janson & Hazler, 2004). A few studies identified bystanders' psychological experience in repetitive abuse (Janson, 2000; Janson & Hazler, 2004, Janson, Hazler, Carney, & Oh, in press), and several researchers investigated the various roles that bystanders may take in a bullying situation (Cowie & Wallace, 2000; O'Connell, Pepler, & Craig, 1999; Salmivalli, 1999). It is evident that bystanders are the most overlooked group even though the impact of their witnessing bullying creates serious problems and their roles are critical in reducing bullying behaviors (Hazler, 1996; Macklem, 2003). The fact that the number of bystanders is much larger than bullies and victims who have been targets of researchers makes it important to investigate diverse variables influencing bystanders' reactions to school bullying among youth.

Definitions of Bullying

The majority of the past research has defined bullying in person-centered terms, in which the characteristics of the relationship between bullies and victims are described (Swearer, 2001). The most commonly used definition by Olweus (1993) is an example, in which bullying is referred to as, "A person is being bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students" (p. 9). This definition includes three critical components in defining bullying.

Harm doing. Bullying can be demonstrated by a bully's intentionally negative behaviors toward the victim, including physical, verbal, or social harm. This harm results in two kinds of severe distress: one is the immediate upset and the other is anticipatory fear (Ross, 2003). Immediate upset may be caused by a variety of triggers such as

physical pain, dehumanization, humiliation and social rejection; meanwhile, the anticipatory fear is an anxiety caused by the threat of future harm. Most victims experience the combination of these two consequences of the bully's harmful behavior.

Repetition. Some researchers assert that bullying needs not be repeated harmful (Askew, 1989; Stephenson & Smith, 1989; Tattum, 1989; White, 1987). Other researchers agree with the criteria of "repetition" to define bullying (Besag, 1989; Greenbaum, 1989; Hazler 1996a; Mellor, 1991; Olweus, 1993; Smith & Thompson, 1991), and most of the literature recognizes that bullying occurs on more than one occasion. Bullying may start by chance at the beginning, but once it starts, the harmful behaviors are likely to continue due to the imbalance of power between bullies and victims. The repeated behaviors tend to establish an organized and systematic pattern.

Imbalance of power. Bullying is different from fighting between those with equal power, because bullying involves an imbalance of physical, social, psychological, or academic power between bully and victim. Bullies are students who possess greater power than victims, and their most important characteristic is more skillful manipulation of their power over victims. Bullies may physically overwhelm their victims, socially reject them, and/or verbally humiliate them.

Given the three critical components of bullying (Olweus, 1993; Slee, 1995), the author defines bullying for this study as behaviors including (a) an imbalance of physical and/or psychological power between the bully and the victim; (b) repeated negative behaviors towards the victim, and (c) a deliberate intention to hurt the victim.

Definitions of Bystanders

The concept of bystanders has been studied in diverse contexts. Initial studies focused on investigating the large number of witnesses during the Holocaust, and then the research on socio-psychological aspects of bystanders' reactions to an emergency situation was stimulated by the Kitty Genovese murder case (Darley & Latané, 1968). Another area of research on bystanders is to investigate the negative impact of witnessing domestic violence (Groves, 2002). Adolescent bystanders who witness school bullying and their reactions are beginning to get more attentions, but has received less attention compared to bullies' or victims' experiences. (Hazler, 1996; Kaster, 2004; Twemlow, Fonagy, & Sacco, 2004).

There are some discrepancies in definitions of bystander. Webster's Encyclopedic Unabridged Dictionary of English Language (1996) defines bystander as a person who is present at an event without participating in it. This definition confines the bystander's role to merely observing, witnessing, and standing by without an active involvement. Barnett (1999) reviewed diverse definitions of bystanding behaviors and found that most definitions were referred to as standing by or being present without taking part as a spectator or observer. Barnett (1999) expanded the scope of bystanders by adding that they can decide to get involved or stay uninvolved. Twemlow et al. (2004) view the bystander as an active and involved participant in the social architecture of school violence rather than as a passive witness. This definition includes bystanders' diverse roles such as support, opposition, or indifference to the perpetrators.

I adopted Barnett's extended views on bystanding behaviors, so bystanders are defined in this paper as people who are present and witness school bullying situations,

and their behaviors may vary from intervening to support the victims, remaining uninvolved, or supporting perpetrators' harassment.

Participants Characteristics in Bullying Situations

Bullies. Researchers have investigated the characteristics of bullies and found that they were more likely to exhibit externalizing behavior problems and general misconduct (Bosworth, Espelage, & Simon, 1999; Kumpulainen et al., 1998; Wolke et al., 2000). Bullies are powerful students who are engaged in doing harm with repeated actions with little or no cost to themselves. They are usually aggressive by engaging in hostile and oppressing behaviors to victims while they experience satisfaction when others are upset or hurt (Macklem, 2003). Olweus (1993) claimed that bullies have a more positive conception of violence, and Hazler and his associates (1997) described bullies' characteristics as controlling others by verbal threats, physical actions and aggressive behaviors. Longitudinal studies (Olweus, 1991; 1993) also supported the bullies' behavioral characteristics as higher rates of alcohol and other criminal behavior. These negative behavioral characteristics are consistent with the findings that bullies are significantly less cooperative than others (Rigby, Cox, & Black, 1997).

Farley (1999) investigated bullies' emotional characteristics by examining the degree of empathy. The bullies scored significantly lower than others on perspective taking which is the subscale measuring cognitive empathy. In other words, they are less likely to understand others from the others' perspective. Field (1999) described the emotional or affective characteristics of bullies by summarizing them as being emotionally immature, lacking concerns for others, being often moody or inconsistent,

being quick to become angry or impulsive, and having no sense of guilt or remorse.

Victims. Researchers have investigated whether the differences in physical characteristics are related to victimization. It seems that size and strength may be a variable that leads to students being bullied indirectly, but other physical characteristics were not significantly related to the victimization (Olweus, 1993). The exceptions are that children with special needs or disabilities are significantly bullied more than other students. Students with moderate learning difficulties were significantly more likely than others to be selected as victims of bullying (Nabuzka & Smith, 1993), and visibility of the abnormality was discovered as an important factor of victimization (Maras & Brown, 2000).

Victims tend to show a variety of behavioral characteristics. Olweus (1993) explained that victims tend to show more anxious and submissive reaction patterns, which indicate their behaviors and attitudes may imply that they will not retaliate. They usually do not have solid friendships among their classmates, so they have fewer friends and less peer protection than other students (Bernstein & Watson, 1997). Rigby (2002) summarized a variety of research findings that victims' behavioral characteristics include poor social skills, relative uncooperativeness, and non-competitiveness.

With regard to affective characteristics of victims, Olweus (1991) found that the victims are more anxious and less secure than other students. It was also reported that the victims are likely to react to bullying with tension, fears, low self-esteem, low risk-taking, and even depression (Banks, 1997; Leff, Kupersmidt, Patterson, & Power, 1999). A more comprehensive recent study adopting meta-analysis (Hawker & Boulton, 2000) supported

these results by showing that victimization experience is strongly related to depression, loneliness, low self-esteem, and anxiety. A recent national study (Nansel, et al., 2001) also yielded consistent findings.

Bystanders. Most studies examining bystanders' characteristics in school bullying focused on their psychological and behavioral reactions to bullying. Studies investigating bystanders' behavioral reactions to school bullying demonstrated that their reactions vary from assisting bullies to defending victims and that most bystanders are passive in helping victims (Craig & Pepler, 2000; O'Connell, Pepler, & Craig, 1999; Salmivalli, 1999; Staub 1989). More studies investigating bystanders were conducted in the field of emergency situations, domestic violence, and genocidal events.

Several studies investigated bystanders' emotional characteristics. Regarding bystanders' empathy and their helping behaviors, it was found that bystanders who were more likely to help others had higher empathy level than those who did not help victims. (Bengtsson & Johnson, 1992; Betancourt, 1990; Eisenberg, Zhou, & Koller, 2001; Guozhen & Shengnan, 2004; McMahon, Wernsman, & Parnes, 2006; Robert & Strayer, 1996). Their psychological stress level was identified as being equivalent to or higher than emergency workers (Janson & Hazler, 2004; Janson, Hazler, Carney, & Oh, in press).

These findings are consistent with the results of other studies examining domestic violence. A substantial amount of empirical studies investigating domestic violence has demonstrated that students who witnessed domestic violence tend to have more social, emotional, and cognitive developmental problems (Groves, 1999). For example, Knapp (1998) found that preschoolers who witnessed domestic violence showed increased

withdrawal, subdued or mute behaviors, and adolescents in violent families expressed increased rebellious behavior such as truancy, dropping out of school, drug and alcohol use, and running away. Johnson et al. (2002) also identified that witnessing domestic violence significantly predicted children's aggression, depression, anger, and anxiety. Psychological distress such as traumatic symptom was also more manifested in students who witnessed violence at homes (Groves, 1999; Rosenthal, 2000). Studies examining bystander's helping behaviors in Holocaust found that helpers have higher independent thinking and self-reliance (Fogelman, 1996), strong sense of identity (Cesarini & Levine, 2002), and increased sense of responsibility (Staub, 1989).

Need for This Study

As much as 92% of the students reported that they witnessed bullying in their schools (Henderson & Hymel, 2002) and that 85% of bullying happens in the context of a group (Craig & Pepler, 1995). The fact that bystanders are the majority of the participants in school bullying implies that bystanders can play a critical role in maintaining or prohibiting the bullying. Hazler (1996b) claimed that bystanders are the most overlooked group of students in school bullying research even though the impact of the bystanders on bullying is a critical factor.

Bystander Psychological Reactions. There is still, unfortunately, a paucity of literature focusing on bystanders' psychological reactions to school bullying among youth, despite the fact that children's witnessing domestic violence has received increased attention over the past three decades (Groves, 2002). Research on witnessing domestic violence demonstrates that bystanders of family violence may also experience emotional

problems, so that studies comparing bystanders and victims show bystanders share considerable psychological stress with victims.

Kolbo, Blakely, and Engleman (1996) reviewed the findings of twenty-nine articles investigating the effects of children's witnessing domestic violence on their behavioral, emotional, and social functioning. They concluded that children who witness domestic violence are at an increased risk for mal-adaptation. For example, students who witnessed domestic violence showed significant differences in emotional functioning. They also demonstrated greater emotional problems such as deficits in empathic responses, lack of self-esteem, anxiety, and depression. Their social competence scores were lower than the standardized norms, and they were more likely to show withdrawal.

The tremendous impact that the witnessing of domestic violence brings about serves to increase the importance of investigating bystanders' reactions to school bullying. The substantial magnitude of psychological disturbance due to witnessing violence and the high rate of school bullying incidences make it urgent to investigate bystanders' psychological reactions to school bullying

Regarding bystander's psychological characteristics, several researchers compared bystanders' experiences with the victims' experiences. They found that bystanders may have similar experiences to those of victims, such as sleeping difficulty and physiological over-arousal (Davidson & Baum, 1990; Hosch & Bothwell, 1990). Gilligan (1991) claimed that violence can decrease the ability to empathize and to relate to others in meaningful ways. Gilligan maintained that individuals who have little empathy for others are less likely to control their aggressive behaviors, thus increasing

their insensitivity to violence. Safran and Safran (1985) found that students became more desensitized to negative behaviors when they were exposed to the negative behaviors. Hazler (1996b) also believed that bystanders and victims share feelings of isolation, ineffectiveness, hopelessness, loss of sensitivity, and loss of self-respect. These findings confirm that bystanders experience significant psychological impact which can result in negative immediate and long-term consequences.

A limited number of studies investigated bullying from the bystander's perspective and the findings have shown that bystanders experience significant psychological stress due to witnessing school bullying. A couple of studies compared the bystanders' psychological reactions to the victims' experience (Janson & Hazler, 2004; Janson et al., in review). Their findings reveal that bystanders' psychological reactions to witnessing repetitive abuse, including peer abuse, are similar to direct victims' experience. Moreover, psychological stress experienced by bystander as a result of witnessing common forms of repetitive abuse was comparable to or exceeded the scores of people who had witnessed natural disasters or other life threatening emergencies.

This line of studies suggests that bystanders and victims may experience similar psychological reactions. The fact that numerous studies over the past decade have documented correlations between school bullying and the victims' negative psychosocial adjustment in adolescent increases the importance of investigating bystanders' psychological reactions (Storch, Masia-Warner, Crisp, & Klein, 2005). The fact that bystanders outnumber victims makes it more important to study bystanders' psychological reactions as well.

Bystander Behavioral Reactions. Bystanders' different roles are defined by their behavioral reactions to bullying. Bystanders could be assistants of the bullies by actively joining in the bullying or by offering positive feedback to the bullies, thereby supporting and reinforcing the bullies. For example, they strengthen the bullies' behaviors by laughing and showing encouraging gestures. On the other hand, most bystanders are likely to stay away from the situation and remain uninvolved, so they tend not to take sides with anyone. These students may act as if they were outsiders who did not notice the situations. Some bystanders try to support the victims by taking sides with them, defending the victims, and showing clearly anti-bullying behaviors. (O'Connell, Pepler, & Craig, 1999; Salmivalli, 1999; Staub 1989).

Bystanders' potential for breaking the cycles of school bullying are substantial considering the fact that bystanders are usually the majority of participants in the situations. They could play a significant role by intervening and to stop the school bullying, but bystanders have been found to be less likely to help when they witness the abuse. The majority of bystanders behave in ways that assist, encourage, or maintain school bullying rather than stop or diminish it, though their attitudes on the abuse have been found to be against the abuse. (O'Connell et al., 1999; Piliavin, Dovidio, Gaertner, & Clark, 1982; Salmivalli, 1999; Whitney & Smith, 1993).

It is crucial to understand bullying as a dynamic that involves not only the bully and victim, but also bystanders. Unfortunately, most bystanders (e.g., outsiders) are less likely to intervene or defend victims, because they try to avoid getting involved due to a fear of revenge and uncertainty of the intervention. Hazler (1996b) summarized several

basic reasons of bystanders' hesitation to intervene: They do not know what it is they should do, they are fearful of becoming the brunt of the bullies' attacks, or they might do the wrong thing that could cause even more problems. These reasons increase the possibility for bystanders avoiding direct involvement, thereby resulting in decreased power and self-respect. Moreover, once a student has chosen a certain role in a bullying situation, it is hard to change the roles. Thus, understanding of the variables that influence bystander's different roles in terms of personal, situational, and psychological aspects will provide clues for creating effective intervention and prevention program to reduce bullying.

Current Study

Rationale. The past research on bystanders shows that personal variables (e.g., gender, grade, ethnicity, and social status) and situational variables (type of abuse, degree of harm, presence of others, and relationship to participants) are related with bystanders different reactions in violent situations as shown in Figure 1.1.

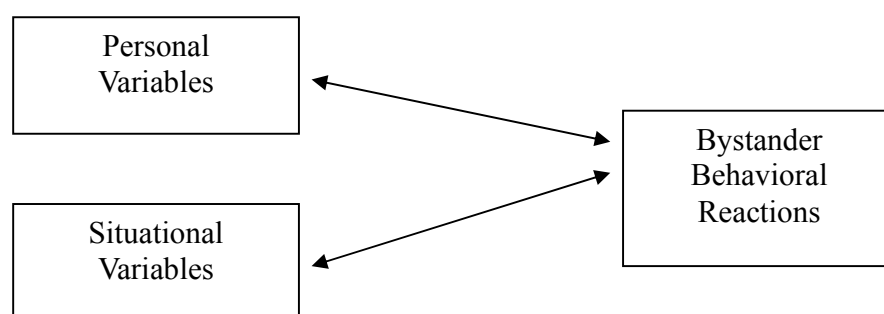


Figure 1.1 Relationship between bystander personal/situational variables and behavioral reactions.

Figure 1.1 shows that personal variables and situational variables are correlated

with bystanders behavioral reactions. For example, with regard to the personal variable of gender, research confirms that girls are more likely to help victims than boys (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996). A study examining the situational variable of a type of bullying validates that bystanders are more likely to help victims when witnessing relational or indirect verbal bullying than witnessing physical or direct verbal aggression (Tapper & Boulton, 2005). Most past studies investigating relationship between personal/situational variables and bystander's reactions managed those variables as separate contributing variables, whereas there were few studies examining how the combination of personal/situational variables contributes to the bystanders' reactions to school bullying. The current study investigates how these personal and situational variables function together in the determination of bystanders behavioral reactions.

Psychological variables have mostly been investigated as emotional consequences of victimization. For example, a number of studies found significant relationships between social anxiety and victimization (La Greca & Lopez, 1998; La Greca & Stone, 1993; Storch, Masia-Warner, Crisp, & Klein, 2005). This line of research focused on bullies or victims, not bystanders, so the lack of research investigating bystander psychological variables increases the significance of the current study. The current study explores what personal/situational variables are impacting bystander psychological reactions such as empathy, anxiety, and trauma as illustrated in Figure 1.2.

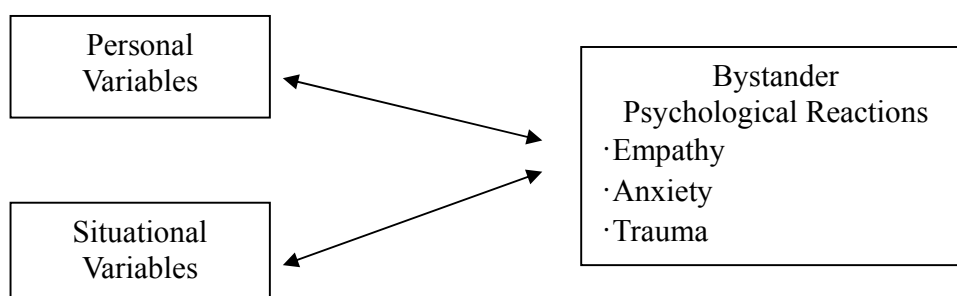


Figure 1.2. Relationship between bystander personal/situational variables and psychological reactions.

Research on the effects of children's witnessing domestic violence identified decreased empathy, depression, and low self-esteem as bystanders' psychological reactions (Kolbo et al., 1996), but these psychological variables have not been studied as contributing variables to bystanders behavioral reactions to school bullying. A few researchers examined bystanders psychological reactions (e.g., trauma) to repetitive abuse (Janson & Hazler, 2004; Janson et al., in review) and found that bystanders psychological reactions are equivalent to those of victims, but they did not expand their study to investigate behavioral reactions.

Information from the current research could be interpreted to suggest a comprehensive model of bystanders reactions that integrates psychological reactions and behavioral reactions. Figure 1.3 illustrates that psychological variables are proposed to function as intervening variables that influence bystander behavioral reactions. This model postulates that personal variables and situational variables operate together with psychological variables in the determination of bystanders behavioral reactions. Past research identified gender and empathy as associated separately with bystanders reactions.

For example, Salmivalli and her associates (1996) found that boys were more frequently in the roles of reinforcer and assistant of the bully, whereas the most frequent roles of the girls were those of outsider and defender of victims. This finding was supported by O'Connell et. al (1999) study in which boys were significantly more likely than girls to join in with the bully. Psychological variables (e.g., empathy, anxiety, and trauma) were not included in these studies as shown at arrow A in Figure 1.3.

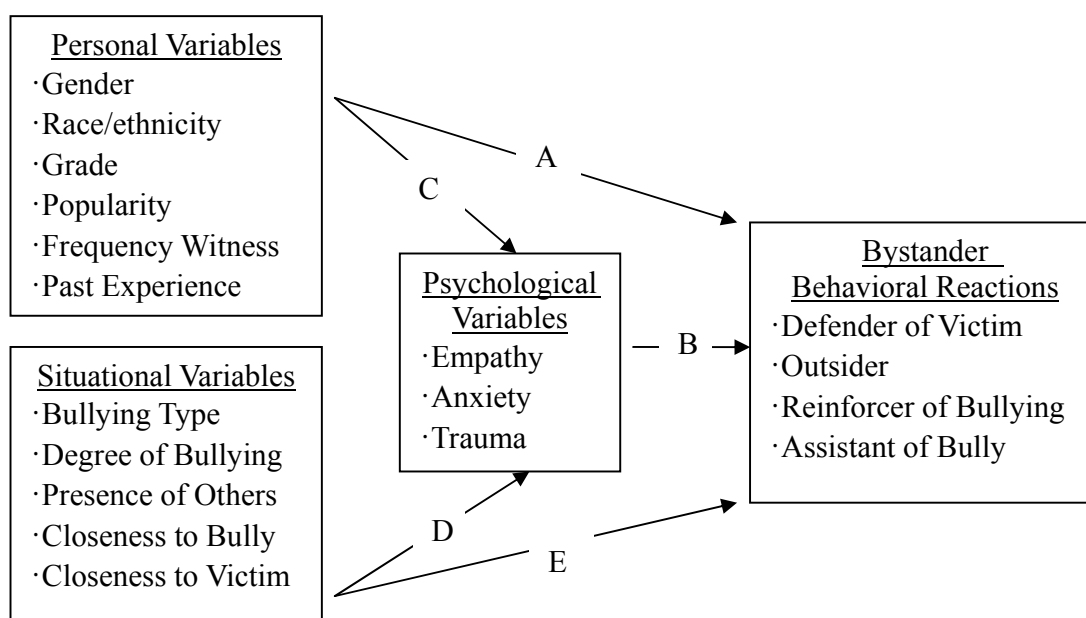


Figure 1.3. Contribution of personal, situational, and psychological variables to bystander behavioral reactions.

On the other hand, several studies examined associations between helping behavior and empathy. Guozhen, Li, and Shengnan (2004) found significant positive relationships between moral empathy and helping behaviors, and Betancourt's (1990) study adopting structural equation modeling identified empathy as a determinant of helping behavior. Gender was not included in these studies as shown at arrow B in Figure

1.3. Empirical research also found gender differences in empathy and the findings show that females have greater empathy than males as shown at arrow C in Figure 1.3 (Batson et al., 1996; Gault & Sabini, 2000; Lennon & Eisenberg, 1987; Macaskill et al., 2002; Schieman & Van Gundy, 2000). The past studies examined bivariate relationships among gender, empathy, and bystanders reaction, but these variables were not investigated within a whole model. The current study is a more comprehensive approach to explain bystander reactions by integrating psychological variables as well as personal and situational variable. Therefore, the model hypothesizes that bystander gender and empathy levels operate together in the determination of their different roles in bullying situations.

Purpose. The purpose of this study was to investigate the relationship among the bystander behavioral reactions to bullying based on their personal variables, situational variables, and psychological variables. The study employed the four different roles of bystander based on behavioral reactions. These roles were categorized as defender of victims, outsider, reinforcer of the bully, or assistant to the bully in terms of the degree of their intervention level. The personal variables were composed of bystander's gender, race, witness grade, popularity, frequency of witness, and past experience. Situation variables included type of bullying, degree of bullying, presence of others, and bystander closeness to bully or victim. Bystander's empathy, anxiety, and trauma level were used for psychological variables.

Research Questions. Past research alluded to significant links between personal/situational variables and bystander behavioral reactions, so it was expected that

behavioral reactions would be predicted by their personal (arrow A) and situational (arrow E) variables in this study. The author also hypothesized that there would be a significant link between personal/situational variables and bystanders' psychological reactions (arrows C and D). It is assumed, therefore, that bystanders' empathy, anxiety, and trauma level are predicted by their personal and situational variables. Several studies suggest significant relationship between psychological variables and bystanders behavioral reactions (arrow B), so the author supposed that there would be a mediating link between personal/situational variables and bystanders' behavioral reactions through psychological variables. In psychology, mediation model identifies the mechanism that underlies an observed relationship between an independent variable and a dependent variable through a third explanatory variable, known as a mediator variable. The mediation model hypothesizes that the independent variable causes the mediator variable, which in turn causes the dependent variable, which is called an indirect effect. Thus, it was hypothesized that there would be both direct and indirect effects of personal and situational variables on bystanders' behavioral reactions through their subjective psychological variables. The following are more specific research questions:

1. Do bystanders personal, situational, and psychological variables significantly contribute to predicting their behavioral reactions to school bullying?

Hypothesis 1: The bystanders independent variables (personal, situational, and psychological variables) account for a significant portion of the variance of their behavioral reactions.

2. What are the direct and indirect effects of bystanders personal, situational, and

psychological variables on their behavioral reactions to school bullying?

Hypothesis 2: The bystanders psychological variables mediate between the independent variables (personal and situational variable) and their behavioral reactions to school bullying.

Significance of the Study

Bystanders are the group who have received relatively less attention than bullies or victims (Hazler, 1996; Janson & Hazler, 2004), because most research paid attention to direct bullies and victims. It is substantially significant to study a bystanders group for several reasons

First, most bullying occurs in the form of a group situation, so it is important to comprehend bullying as a group dynamic. Bystanders have been reported as the majority in bullying situations. The fact that the number of bystanders is much larger than bullies and victims suggests that bystanders have potential to change power dynamics in bullying situations. The current study examining a variety of variables influencing bystanders' behaviors provides valuable information of how to change bullying dynamics.

Second, limited studies investigating bystanders' different roles in school bullying identified that most bystanders tended to maintain school bullying by assisting or reinforcing bullies rather than to stop or diminish it by defending victims (O'Connell et al., 1999; Piliavin, Dovidio, Gaertner, & Clark, 1982; Salmivalli, 1999; Whitney & Smith, 1993). The current study explores contributing variables to bystanders behavioral reactions to help victims by examining their personal, situational, and psychological variables. The identification of contributing factors to bystanders helping behaviors

shows practical clues for creating effective prevention programs.

Third, bystander experiences of witnessing bullying was identified as highly associated with their psychological distress (Janson, 2000; Janson & Hazler, 2004, Janson, Hazler, Carney, & Oh, in press). Bystanders experiences are similar to victims experience in terms of physiological, emotional, and behavioral reactions (Davidson & Baum, 1990; Gilligan, 1991; Hosch & Bothwell, 1990; Safran & Safran, 1985). This fact increases the importance of the current study, because bystanders witnessing experience of bullying may cause significant negative consequences to their development. Current study includes investigation of how bystanders witnessing experience contributes to their psychological variables such as empathy, anxiety, and trauma. The finding shows how bullying events influence bystanders psychological experience.

Fourth, most past studies investigated psychological variables as consequences of bystanders exposure to bullying. The current study is unique in that psychological variables are examined as contributing variables to bystander behavioral reactions as well. For example, it explores how bystander empathy, anxiety, and trauma level contributes to their helping behaviors for victims. The psychological variables were also investigated as mediating variables between personal/situational variables and bystander behaviors. This approach provides better understanding of how bystanders' covert psychological reactions intervene with their overt behavioral reactions, thereby providing comprehensive knowledge on relationship among a variety of variables.

Limitations of the Study

Self-report study. There are numerous assessment methods that can be used to

measure constructs around bullying. Observation, interviews, sociometric measures, questionnaires, teacher-rating scales, and self-report measures have been used for assessment of bullying (Crothers & Levinson, 2004). Each assessment method has both strengths and weaknesses. Current study adopts self-report method to measure bystanders experience and reactions. Self-report instruments are frequently used as an assessment method, because these instruments can be completed in a short period with relatively less cost and manpower. Self-report instruments' weakness is that there often was a discrepancy between students' self-perception and the perception of others (Perry, Kusel, & Perry, 1988). In particular, it has been maintained that self-report assessments usually underestimate actual behavior from the bullies' perspective, because bullies are usually reluctant to identify themselves as bullies. Current study may have underestimate bystander behavior since participants are being asked to recall past witnessing experience of bullying instead of asking about current and direct bullying experience. However, the discrepancy between self-perception and actual reaction cannot be ignored. For example, less responsive bystanders might present themselves in a manner that will be viewed favorably by others, so social desirability bias was screened by the short form of Marlowe-Crowne Social Desirability Scale (Form C).

Retrospective study. Current study asked participants to describe one particular bullying episode from their recall, then they were asked to identify a variety of characteristics of the recalled bullying event. The subsequent instruments measured their empathy, anxiety, and trauma level. Participants were asked to complete the trauma and state-anxiety scales, imagining themselves in the bullying episode they described in the

School Bullying Bystander Survey. In other words, they were asked to answer how they felt when they were in the particular situation. This questionnaire-based design might have potential limitations of retrospective studies, because undergraduate participants were asked to recall their witnessing experience of bullying during middle or high school. The retrospective period may range from one to eight years, so accuracy of their answers might be decreased by the retrospective duration. Younger college students (e.g., freshmen or sophomore students) were recruited in order to minimize their retrospective period and students who are older than 22 years were excluded from the analysis.

Unlike the trauma and state-anxiety scale, empathy and trait-anxiety scales measure participants' current empathy and trait-anxiety level. Direct comparison between participants' retrospective behavioral reactions and current empathy and trait-anxiety levels has limitations, because of the difference between past experience and current emotions. However, there was empirical evidence that empathy and anxiety are stable construct throughout adolescent period. Research examining consistency of empathy across time identified that this psychological property is stable and consistent around throughout adolescence. For example, Eisenberg and associates (1995) found evidence of consistency in empathy in late adolescence. Their longitudinal study adopted three subscales of the Interpersonal Reactivity Index to measure participant's emotional empathy (Sympathy), cognitive empathy (Perspective-Taking) and personal distress (Personal Distress) during late adolescence (15 years) through early adulthood (20 years). They concluded that empathy-related constructs were stable over periods of 4 years and longer, so individual differences in these reactions seem to have an enduring quality in

adolescence and early adulthood. Therefore, the author assumed that participants' current empathy level is highly correlated with their empathy at the time of recalled event.

Research investigating consistency of trait anxiety across time also identified that trait component of anxiety is stable and consistent around throughout adolescence. Anxiety, as a trait, is also known as relatively more stable developmentally than other personality characteristics. Spielberger (1983) claimed that trait anxiety is relatively stable characteristic which differentiates individual tendencies to appraise specific situations. A few longitudinal studies (Bosquet & Egeland, 2006; Carmel & Bernstein, 1989) examining stability of adolescents' anxiety over time yielded trait anxiety was considerably consistent during this age period. Carmel and Bernstein (1989) investigated longitudinally consistency of late adolescents' and young adults' (ages 17 through 28) trait anxiety over 18 months with the State-Trait Anxiety Index measure. The results supported intraindividual stability of trait anxiety. Bosquet and Egeland (2006) also investigated the etiology and course of anxiety symptoms from infancy through adolescence in a longitudinal sample with 155 subjects. The results of path analyses revealed that anxiety symptom showed moderate stability during childhood and adolescence. Lau, Eley, and Stevenson (2006) explored genetic and environmental influences on measures of state and trait anxiety in a sample of 1058 twins aged 8 through 16, and the results revealed that state anxiety is largely influenced by environmental variables, whereas trait anxiety showed moderate genetic effects and substantial individual and specific effects. This body of research confirms that trait anxiety is consistent during adolescence.

Chapter Two

Literature Review

This chapter focuses specifically on a review of the relevant literature providing a foundation for this study. In order to understand the basis of the questions outlined in Chapter 1, a thorough review of each construct is provided. The fact that the number of bystanders is much greater than the victims and the abusers makes it more important to identify contributing variables to bystanders' reactions to school bullying. Most studies investigating contributing variables that seem to play a part in the school bullying focused on victims and abusers, not bystanders (Janson et. al, in press); thus, the author explores the contributors to bystanders' reactions by integrating information from other populations (e.g., adults) and other professions (e.g., social psychology). Significant events in history investigating bystander's reactions are reviewed and the contributing variables are explored in terms of personal and situational variable. Psychological and behavioral reactions are reviewed as well.

Significant Events on Bystander Study

The Holocaust. Bystanders' (e.g., soldiers or rescuers) reactions during the Holocaust prompted many moral and behavioral questions, and more emphasis has been participants as perpetrators in the Holocaust, whereas examination of participants as bystanders has been relatively neglected (Ehrenreich & Cole, 2005). However, a few researchers paid attention to bystanders and investigated characteristics of helpers during the Holocaust (Cesarini and Levine, 2002; Fogelman, 1996; Staub, 1989). Fogelman (1996) examined rescuers' characteristics by interviewing 100 rescuers of Jewish people

and identified that rescuers held core confidence that they had developed during childhood such as independent thought and self-reliance. Cesarini and Levine (2002) also recognized rescuers' characteristics as strong sense of self-identity and personal responsibility. Staub (1989) identified a sense of responsibility as major difference between rescuers and non-helping bystanders. This line of research shows that bystanders' helping behaviors are related with their inner characteristics.

Genovese syndrome. The study of bystanders' behavior in case of observed violence is originated from the Genovese case of 1964 (Laner, Benin, & Ventrone, 2001). Kitty Genovese was stabbed to death near her home and the apparent lack of reactions of her neighbors were sensationalized after the case came to public attention, thereby prompting investigation into the psychological phenomenon that became known as the bystander effect, or "Genovese syndrome." Research on bystanding behaviors in emergency situations revealed that there are many situational variables that might affect bystanders' reactions such as the level of ambiguity of the emergency situation and the bystander's level of contact with the victim, in addition to the personal variables such as gender of the bystander and the victim (Kaster, 2004).

Personal Variables Contributing to Bystander Reactions

Gender. In general, higher rates of bullying and aggression have been reported in boys (Bosworth, Espelage, & Simon, 1999; Ross, 1996). However, gender differences emerge in direct relationship to how researchers define bullying or aggression. While boys are most likely to be involved in overt physical aggression, girls are more likely to be involved in indirect bullying or relational aggression (Crick & Grotpeter, 1995). More

specifically, girls have a tendency not to be aware that their behaviors are bullying, so girls' self-report seem to underestimate the degree to which they are engaging in bullying (Ross, 1996). When indirect bullying or relational aggression is included, the gap between boys' and girls' aggression is not as wide (Macklem, 2003). There are several studies on how the gender of bystanders plays into their reactions. O'Connell et. al (1999) examined peer involvement by analyzing peer processes that occur during bullying episodes on the school playground. They found that older boys (grades 4-6) were significantly more likely than older girls to join in with the bully. Their results also revealed that both younger (grades 1-3) and older girls were significantly more likely to support the victims than older boys. These findings are consistent with Salmivalli and her associates' findings (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996). They found that there were significant gender differences in the bystanders' role. Boys were more frequently in the roles of reinforcer and assistant of the bully, whereas the most frequent roles of the girls were those of defender and outsider.

Bystanders' different behavioral roles by gender are supported by several studies examining their perceptions on effective strategies of intervention. Camodeca and Goossens (2005) examined how children's opinions on effective strategies are different in terms of their gender. They found that girls chose assertive strategies more often than boys. Cowie (2000) also found that girls are more likely to choose assertive and prosocial strategies and to use constructive resolution more often than boys. It seems that girls' preference to more assertive strategies results in showing more helping behaviors for victims.

The tendency of female bystanders' high intervention was more sophisticated by integrating situational variables with gender. Laner, Benin, and Ventrone (2001) conducted a comprehensive literature review on bystanders' attitudes towards victims of violence. They explained that the nature of the help required in the situation plays into their reactions. They summarized "active, doing, spontaneous, and anonymous acts are more likely to be carried out by men than by women. Women are more likely to help than men (as a small number of studies have found) when helping is more planned, formal, personal, and less likely to involve direct intervention." (Laner et al., 2001. p.27). They also examined how gender of the bystanders and the types of victims interacted. Their findings show that women are most likely to intervene on behalf of children, while men are most likely to intervene to aid a woman. They concluded that people who perceived themselves to be stronger than others are most likely to intervene.

The literature review on gender influence on bystanders' reactions shows well how a personal variable (e.g., gender) could be better understood by more fully considering situational variables (e.g., nature of help and types of victims), because, in general, these two variables operate together in the determination of bystanders' reactions.

Age or Grade. Older or higher grade bystanders have been found to be less responsive to school bullying situations in general. Staub (1970) identified that children showed tendency to decrease helping behaviors from second to sixth grade, though their behaviors increased from kindergarten to second grade. This tendency was supported by the finding that students tended to lose their willingness to help the victims when the students move from elementary to middle school (Menesini et al., 1997). These findings

are consistent with Rigby and Slee's (1992) findings in that older children provided significantly less support for victims in their study.

This behavioral pattern by ages seems to be related with the changes of their perception. Rogers and Tisak (1996) investigated children's conceptions of the expected (i. e., what a peer would do) and prescribed (i.e., what a peer should do) behavioral responses of peers as witness of aggressive acts. They found that there were developmental discrepancies in children's tendency to distinguish between the witness' expected and prescribed behavior. Younger children stated that the witness would and should tell an authority about the aggressive act. On the contrary, older children predicted that the witness would most likely not notify an authority, even though the older children believed the witness should tell an authority. This finding is consistent with other studies (Tisak and Tisak, 1996; Tisak, Nucci, & Jankowski, 1996). The researchers concluded that older adolescents seem to think that they are able to resolve the situations without the intervention of an authority and the older participants may have been concerned that reporting the situation to an authority would threaten their relationship among peers. These studies confirm that bystander behavioral pattern is related with perceptions.

O'Connell et. al (1999) also examined the effect of grade level on bystanders' use of time during bullying episodes. They found that older boys were significantly more likely to join with the bully than younger boys. Camodeca and Goossens (2005) also examined how children's opinions on effective strategies to stop bullying varied according to their age. They found that younger children preferred nonchalance more often than older children, who tended to choose retaliation. According to the researchers,

older students may consider nonchalance to be childish behavior because doing nothing could imply weakness, whereas older youths are likely to choose to show their strength through retaliation. This implies that bystanders' different reactions in terms of their ages are related to their changing thoughts about effective and appropriate intervention.

Race or Ethnicity. One of the variables that have received little empirical attention regarding school bullying research is race or ethnicity. Most current studies heavily relied on White, middle-class participants, even though most researchers are making an effort to include diverse ethnic samples in psychological research. A few studies investigated the relationship between victims' experience and their race, but little research exists from bystanders' perspective.

Fox and Stallworth (2005) examined the relationship between the incidence of individuals' workplace bullying and their membership ethnicity. They used four different ethnic categories: Asians, African-Americans, Hispanics/Latinos, and Whites. All three ethnic minority groups reported higher levels of racial bullying which refers to both subtle acts of discrimination and hostile treatment based on race or ethnicity. They found that African-Americans victims responded significantly more emotionally and behaviorally, so they were more likely to respond to bullying.

There has been little research on racial or ethnic effect in school bullying from bystanders' perspectives. Janson et al. (in press) identified racial differences in bystanders' reported trauma levels when they recalled their witness experience. Their study revealed that Asian, Latino/Latina and Native Americans recalled significantly higher levels of psychological stress than European Americans and African Americans.

However, there was limitation in interpretation because the study included limited numbers of non-European American participants. The authors hypothesized that this finding may be related to the fact that Asian, Native American, and Latino/Latina students may have different levels of language, accent, immigration and assimilation which could separate Caucasian and African American students from themselves. The lack of literature on this issue requires further investigation of race or ethnicity as an influencing variable to bystanders' experience.

Race or ethnicity variable should be evaluated with understanding of situational variables such as school context. School bullying is most likely to happen when there is unequal power among peers (Olweus, 1994). The unequal power relationship can take diverse forms. It is likely that the ethnic composition within a school can signal asymmetric power, and thus school can function as a context for peer abuse (Graham and Juvonen, 2002). Hanish and Guerra (2000) examined the contextual correlates of peer victimization in a sample of African-American, Hispanic, and non-Hispanic students. Their findings showed that risk for being victimized by peers varied by ethnicity and the risk was moderated by school context. For example, White children were at significantly greater risk of being victimized in predominantly non-White schools. These findings suggests that diverse power dynamics created by different ethnic compositions may impact participants' reactions to abuse situations, so racial or ethnic variables also should be considered as one of several important contextual variables.

Social status. A clear line of research reveals that social status plays an important role in bystander's reactions to school bullying. Salmivalli et al. (1996) found that

bystanders' sociometric status was related with their roles. They categorized bystanders as either, assistants of the bully, reinforcers of the bully, outsiders, or defenders of the victim. Bystanders' sociometric status (popular, rejected, neglected, controversial, and average) was evaluated by peer nomination. Their study revealed that the majority (43.0%) of the defenders of the victims belonged to popular status group, and students who had high sociometric status tend to report that they would intervene to help victims.

This finding is consistent with Ginsberg and Miller's study (1981). They investigated 8 to 11 year old boys' intervention into playground fighting. They found that only a small number of boys intervened, and most of them held positions of high peer group social status. Children who intervened during fights were consistently rated as dominant members of the playgroup by naive raters who watched randomly selected video clip of general play group activity. They extended their research by investigating the relationship between students' social status and prosocial behaviors. A highly significant positive relationship ($r = .66, p < .01$) was found between peer group leadership status and willingness to share with others. They concluded that status within a social group hierarchy is likely to be an important variable of prosocial behaviors including helping behavior.

Strayer and Noel (1986) also examined the role of third parties in conflicts among preschool children. They found that about 50% of third parties who are involved in the conflicts became victims of redirection of aggression from either the victim (i.e., displacement of aggression) or initial aggressor (i.e., generalization of aggression). The result showed that the victims of displacement and generalization had lower dominance

status than their aggressors, whereas defenders and allies who formed coalitions with the victim had higher dominance status than their victims. O'Connell et. al also (1996) claimed that children with high social standing are relatively less affected from the peer pressures that upholds the bully's power dominance; thus, students with higher status may have enough power to successfully intervene for victims.

This obvious line of research suggests that the higher bystanders' social status, the more they are likely to help the victims, so empowerment of bystanders in their social status would be an effective strategy to the break peer abuse cycle.

Situational Variables Contributing to Bystander Reactions

Type of abuse. Tapper and Boulton (2005) examined whether bystander's reactions are different depending on the type of aggression they witness. They employed a wireless microphone and hidden camera to record bystanders' responses to children's various forms of aggression. They found that peer reactions to different types of aggression varied. When bystanders witnessed direct relational, indirect verbal, and indirect relational aggression, their responses supporting for the aggressor were high (30%, 39%, and 38%, respectively), while their reactions supporting the aggressor significantly decreased when then they witnessed direct physical and direct verbal aggression (17% and 12% respectively). On the other hand, most bystanders did not show reactions when they witnessed direct physical and direct verbal aggression (42% and 49%, respectively) compared to the direct relational, indirect verbal, and indirect relational aggression (30%, 28%, and 33%, respectively). These findings reveal that bystanders' reactions are different in terms of the aggression type.

Degree of harm. Fischer, Greitemeyer, Pollozek, and Frey (2006) tested whether the bystander effect is influenced by the degree of the emergency's potential harm. They revealed that the bystander effect did not occur in the context of highly dangerous emergencies. They identified that bystanders' helping behaviors decreased when others are present (bystander effect) in situations with low potential danger; however, their helping behaviors did not decrease in situations with high potential danger regardless of the presence of others. Janson et al. (in press) investigated what situational variables predict the amount of bystander's experienced trauma and found that the degree of harm was a significant variable influencing bystanders' psychological stress. In order to identify predictor of bystanders' trauma, they used type, frequency, duration, and intensity of abuse as expected situational variables and included witness' and victim's gender and grade level as expected personal variables. Their multiple regression analysis revealed that the intensity of abuse was the only significant predictor for bystanders' trauma.

Relationship of participants. Studies investigating the relationships among participants have demonstrated that students' reactions to abuse are influenced by specific peer relationships. Tisak and Tisak (1996) investigated early adolescents' thinking about bystanders' behaviors when associates engage in acts of aggression. They found that confrontation of the abuser was used more often when the abuser was a good friend than when the aggressor was an acquaintance. The researchers concluded that because they regard peer solidarity as important, peers would be more likely to settle the dispute themselves by confronting the bully rather than by involving an authority.

Chaux (2005) also examined whether third parties' (bystanders) behavior in conflicts was related to the closeness of the relationship with main parties (abusers and victims). The result shows that third parties are more likely to support one side of the main parties when the third parties were closer to one of the main parties. Similar finding was found by Levine, Cassidy and Brazier (2002). They investigated the social category relations between bystander and victim. Their finding indicates that bystanders are more likely to help victims who are described as in-group as opposed to out-group members. As a result, these studies show that bystanders' relationship with abusers or victims play a role in the determination of their reactions.

Presence of others. Previous research in bystanders' intervention found that the bystander's perception of other people's presence significantly reduces the possibility of their helping behaviors, which is called "bystander effect". Latané and Darley (1970) proposed three different ways that may explain the bystander's inhibition of helping behaviors in emergencies: a) social influence; b) evaluation apprehension; and c) diffusion of responsibility. Social influence means bystanders are likely to inhibit their helping behavior when they see inaction of others and interpret the situation as less of an emergency. Evaluation apprehension implies that bystanders tend to inhibit their helping when they are worried that their behavior can be seen by others and evaluated negatively. Diffusion of responsibility indicates that if others are present, the psychological cost of bystander's non-intervention will be shared with others, thus decreasing bystanders' intervention.

Levine et al.'s (2002) investigation of bystander effects shows more sophisticated

understanding of the effect. They examined, in particular, how bystander's intervention is influenced when fellow bystanders are present, and the result showed an opposite finding to general bystander effect. The presence of others who shared group membership with the bystander increased the bystander's intervention. This finding suggests that bystander effect is mediated by the relationship among bystanders.

Psychological Variables Contributing to Bystander Reactions

There has been little research that investigated psychological variables of bystander's reactions to school bullying. Most studies examining psychological variables in school bullying focused on bullies or victims. In particular, psychological variables have been studied as consequences of peer abuse and characteristics of participants.

Empathy. There have been many definitions of empathy, but two distinct definitions of empathy have been used historically. Contemporary definitions of empathy tend to integrate cognitive and affective components, by defining empathy as the ability to recognize emotional cues, take the perspective of another, and respond to the emotional state of another with an emotional experience (Feshbach, 1997). Empathy has been investigated as a variable that is related with aggressive behavior (Loudin, Louksa, and Robinson, 2003; Miller and Eisenberg, 1988; Richardson, Hammock, Smith, Gardner, & Signo, 1994;; Shechtman, 2003) and prosocial behavior (Bengtsson & Johnson, 1992; Betancourt, 1990; Eisenberg, Zhou, & Koller, 2001; Guozhen & Shengnan, 2004; McMahon, Wernsman, & Parnes, 2006; Robert & Strayer, 1996).

In Dymond's (1949) cognitive role-taking approach, empathy is defined as the ability to imaginatively take the role of another and understand and accurately predict a

person's thought, feelings, and actions. The cognitive component of empathy stresses the ability to accurately take the perspective of the other person. For example, Ickes (1993) coined the term "empathic accuracy," which is a person's capability to accurately infer the specific content of another person's thoughts and feelings. This concept does not include emotion on the part of empathizer. With regard to the cognitive aspect of empathy, researchers have used different terms such as "understand," "enter into," "infer," or "imagine" to imply what the empathizer is doing in the situation, but what many empathy researchers have agreed on is that some kind of cognitive understanding is central to the empathy process (Hakansson & Montgomery, 2003).

It has been shown that aggressive children have deficiencies in social information-processing in terms of cue encoding and interpretation (Dodge, Lochman, Harnish, Bates, & Pettit, 1997). This means that aggressive children lack a cognitive understanding of situations. This inability is likely to hinder aggressive children from developing empathic understanding and to affect their violent behaviors. Dodge et al. (1997) also suggested that aggressive children view aggression more positively, perceiving positive outcomes and neglecting negative outcomes, than do non-aggressive children.

A second definition of empathy, suggested by Stotland (1969), is an individual's vicarious emotional response to perceived emotional experiences of others. The emotional component of empathy is described as the sharing of feelings with an observed person. Cognitive empathy consists of a primarily intellectual process and includes social skills and social perceptiveness, whereas emotional empathy consists of somewhat basic

or “primitive” level of interpersonal process (Mehrabian, Young, & Sato, 1988). For example, Hoffmann (1987) viewed emotion on the part of the empathizer as crucial to empathy, and defined empathy as “an affective response more appropriate to another’s situation than one’s own” (p.48). In particular, the empathizer’s emotional response to another’s immediate pain is stressed in emotional empathy.

It has been shown that bullies, in particular relational bullies are able to understand the beliefs and feelings of others and can use this understanding to their advantage (Sutton, Smith, & Swettenham, 1999). What relational bullies may be deficient in is the ability to share in and empathize with the feelings of others.

Both cognitive and emotional empathy have been identified as being related to aggressive behaviors. Perspective-taking known as cognitive empathy was related to inhibition of aggressive responses (Richardson, Hammock, Smith, Gardner, & Signo, 1994). Loudin, Louksa, and Robinson (2003) also identified that lower levels of empathic concern were associated with higher levels of relational aggression. Miller and Eisenberg (1988)’s meta-analysis confirms that empathic responding is negatively related to aggression and antisocial externalizing behavior. Shechtman (2003) found that aggressive boys showed a lower level of emotional empathy, but the groups did not differ in cognitive empathy.

Regarding influence of empathy on bystander’s reactions, several studies investigated associations between prosocial behaviors such as helping behavior and empathy (Bengtsson & Johnson, 1992; Betancourt, 1990; Eisenberg, Zhou, & Koller, 2001; Guozhen, Li, & Shengnan, 2004; McMahon, Wernsman, & Parnes, 2006; Robert &

Strayer, 1996). Guozhen, Li, and Shengnan (2004) found that significant positive relationships between moral empathy and helping behaviors among children aged 8 to 12 and their trend of helping behavior was affected by situational variables. The study examining empathy as a causal attribution to helping behavior with a structural equations modeling revealed empathic emotions as determinants of helping behavior (Betancourt, 1990).

More sophisticated research shows that cognitive and emotional empathy seems to work differently in the determination of prosocial behaviors. Regarding association between students' cognitive empathy and their prosocial behaviors, several studies revealed that students' ability of perspective-taking of another person is critical to the enactment of pro-social behavior such as helping victims (Bengtsson & Johnson, 1992; Eisenberg, Zhou, & Koller, 2001; McMahon, Wernsman, & Parnes, 2006; Robert & Strayer, 1996), but Barnett and Thompson (1985) claimed that high understanding and perspective taking of other persons are likely to insufficient to motivate students to engage in prosocial behaviors. They investigated interactive role of empathic disposition (emotional empathy) and perspective-taking (cognitive empathy) in motive for helping behavior. Their findings revealed that children who possessed high cognitive empathy but low emotional empathy reported being especially Machiavellian in their interactions with others and they tended to be rated by teachers as showing less helping behaviors. This finding suggests that students who have high cognitive empathy may demonstrate an inability or unwillingness to help others. This finding implies that students who are insightful and discerning of other's feelings may be inclined to manipulate others with

high cognitive empathy. This finding is supported by Bengtsson and Johnson's study (1992). They examined how aspects of perspective taking and dispositional affective empathy are related to prosocial behavior in late childhood. They found female students' ability of high perspective taking ability was not related to their prosocial behaviors.

This line of research confirms that empathy plays a critical role in the determination of bystanders' helping behaviors and two aspects of cognitive and emotional empathy mediate their reactions in a different way. The author hypothesizes from the review of literature that cognitive and emotional empathy play a different role in contributing bystanders' reactions, so both aspects of empathy was measured in this study.

Anxiety. Anxiety is a multidimensional construct and a couple of distinctions have been used. One common distinction is between state anxiety and trait anxiety (Spielberger, 1985). State anxiety is defined as an unpleasant emotional arousal in face of threatening demands or dangers. State anxiety is the temporary pattern of emotional arousal elicited by environmental stressors, including physiological arousal and symptoms of apprehension. Trait anxiety reveals the existence of stable individual differences in the tendency to respond with state anxiety in the anticipation of threatening situations. The other common distinction is between social anxiety and social avoidance. Social anxiety refers to fear of negative evaluation and it is characterized by students' concerns that others would judge them in a negative way, whereas social avoidance is students' behavioral consequences of the anxiety (La Greca, Dandes, Wick, Shaw, & Stone, 1988). The distinction between state and trait anxiety was adopted in order to investigate how bystanders' personality (trait) and emotional arousal (state) function

differently in the determination of their reactions.

Spielberger (1966) suggested multifaceted definitions of anxiety by distinguishing state anxiety and trait anxiety. This distinction has been widely recognized in the psychological literature and the reexamination of the distinction has contributed to the personality development model. State anxiety as the transitory pattern of emotions includes a variety of reactions in the threatening situation such as physiological arousal, symptoms of apprehension, worry, and tension. On the other hand, trait anxiety as a personality disposition has been identified as associated with cognitive biases (Muris et al., 2003) and personality dimensions of biological and genetic foundation (Jardine, Martin, & Henderson, 1984). The mechanisms explaining the relationships between state and trait anxiety have not yet clearly suggested (Lau, Eley, Stevenson, 2006), though psychometric distinctions of the two anxieties has been well established by variable analytic studies (Cattell & Scheier, 1963).

There is paucity of studies examining anxiety as a contributing psychological variable of bystander's reactions, whereas anxiety has been investigated as a part of negative consequences of aggression and victimization (Swearer, Song, Cary, Eagle, & Mickelson, 2001). Several studies investigating the role of anxiety in aggressive behavior yielded positive relationship between anxiety and aggressive behavior (Kashani, Dueser, & Reid, 1991; Ialongo, Edelsohn, Werthamer-Larson, Crockett, & Kelam, 1996). It was interpreted that students with high anxiety are more likely to misinterpret environmental stimuli, thereby demonstrating more aggressive behaviors. This interpretation is supported by the study of Barret and associates' study (Barret, Rappee, Dadds, & Ryan,

1996). They concluded that students who were more anxious tended to recognize ambiguous situations as being more threatening.

Anxiety has been identified as one of participants' several reactions to aggressive behaviors and studies investigating the relationship between anxiety and victimization reveal consistent findings. A number of studies have found that peer victimization and social anxiety have positive relationships (La Greca & Lopez, 1998; La Greca & Stone, 1993; Storch, Masia-Warner, Crisp, & Klein, 2005). Self-perceived victimization is highly correlated with anxiety (Craig, 1998; Graham & Juvonen, 1998) and victims' anxiety level is consistently higher than non-victims (Bernstein & Watson, 1997; Olweus, 1994; Slee, 1994). A recent meta-analysis of this issue revealed that the average effect size of studies investigating the correlations between peer victimization and social anxiety to be .25 which is significant (Hawker & Boulton, 2000). More recent study by Duncan (1999) identified that bully-victims reported significantly higher levels of anxiety than bullies and victims.

Trauma. Most studies examining relationships between bullying and trauma target adults' bullying experience at work (Matthiesen & Einarsen, 2004; Tehrani, 2004). Their consistent findings are that those who experienced bullying at works show a high level of distress and symptoms of PTSD. Research examining the correlations between exposure to violence and PTSD symptom among school-aged populations has just begun (Rosenthal, 2000), and these studies generally report a positive relationship between the degree of exposure to violence and levels of psychological distress.

Intrusion and avoidance have been identified as major symptoms of people who

experienced traumatic events (Rosenberg, 2001). Intrusion symptoms occur immediately when memories of past traumatic event are revived. The most common intrusion symptoms are the flashback and nightmare. Flashbacks are clear memories that may be triggered by a variety of stimulus such as smells or sounds and they can cause a person to relive the traumatic experience repeatedly. Nightmare which can occur unexpectedly causes extreme fear and anxiety as well. On the other hand, avoidance symptoms describe a sufferer's unconscious tendency to avoid any trauma related event. The sufferers may avoid being with family or friends in order to hide their illness and may experience of alternating feelings between intense emotion and numbness.

Considerable studies examining the relationship between the intrusion and avoidance found that positive relationship between two symptoms is moderate to strong (Andrews, Shevlin, Troop, & Joseph, 2004). Studies examining the relationship between the intrusion and avoidance focused on the role of intrusion as initiating and/or maintaining variable of avoidant behaviors. These studies using the Impact of Event Scale reported that intrusion items scores decreased over time more dramatically than the avoidance item score (Bernstein, 1989). Zilberg, Weiss, and Horowitz (1982) also investigated the degree to which intrusion and avoidance are associated in terms of timing of measurement. They concluded that the two symptoms may be disassociated in the immediate aftermath of trauma but the association may be increased over time.

A couple of studies using school-aged population identified that even witnessing common forms of repetitive abuse including bullying is associated with significant traumatic reactions (Janson & Hazler, 2004; Janson, Hazler, Carney, & Oh, in press).

These studies investigated trauma level of bystander who witnessed repetitive abuse including include bullying, racism, sizism, homophobia, corporal punishment, and sexual harassment. They compared the participants' trauma level with emergency workers such as fireman, police, paramedic and highway workers who were evaluated following earthquakes. They found the bystanders' experience of witnessing common forms of repetitive abuse results in equivalent or even higher levels of trauma than those who experienced catastrophic traumatic event such as earthquake.

A couple of studies examining the relationship between trauma and witnessing violence were conducted in the field of community violence and domestic violence. Rosenthal (2000) investigated the witness experience of community violence and trauma symptoms (anger, anxiety, depression and disassociation) in adolescence. She found that exposure to recurring community violence was moderately correlated with the manifestation of psychological trauma symptoms. Both direct victimization and witnessing community violence were related to trauma symptoms in the study. Grethel (2005) examined the relationship between the severity of the child's trauma-related symptoms and severity of domestic violence exposure. The findings of this study suggested that children exposed to more severe domestic violence appeared to have higher rates of trauma-related symptoms such as attention difficulties, anxiety, depression, and dissociation than those exposed to less severe domestic violence.

Bystander Behavioral Reactions

School bullying situations form bystanders' diverse behavioral reactions as their various roles. Bystanders' roles refer to participants' ways of being involved in bullying

situations. Bystanders are likely to choose their behaviors based on their own dispositions and on socially defined norms that individuals are expected to follow (Salmivalli, 1999). Several researchers have described the diverse roles that bystanders may take in school bullying situations. (Craig & Pepler, 2000; O'Connell, Pepler, & Craig, 1999; Salmivalli, 1999; Staub 1989). Craig and Pepler (1995) found that bystanders were passively or actively involved in 85% of the bullying episodes and only 11% of the bystanders intervened in the situations. Moreover, 74% of the bystanders demonstrated more respect for the bully, which can be interpreted as reinforcing bullying behaviors. Banks (1997) also identified that 33% of bystanders reported they knew that they should help victim, but they did not and another 24% of the bystanders said that bullying was not their business.

Salmivalli (1999) identified seven different roles of participants in bullying situation as following:

- Victims: students who are repeatedly and systematically harassed;
- Bullies: students who are active and initiative-taking perpetrators;
- Assistants: students who support or help bully by joining in the bullying;
- Reinforcers: students who give positive feedback to the bully by observing, showing encouraging gestures, or laughing;
- Outsiders: students who overlook bullying by staying away and not taking sides;
- Defenders: students who intervene the bullying situation by taking victim's side, providing comfort to the victim, and trying to make others stop; and
- Those who have no clear role.

The Assistants. This group of students can also be called as helpers or sidekicks. Sullivan and associates (2004) preferred using “sidekick” because it has the connotation of a student who has been manipulated and captured by bully and used by him or her. The assistants may seem to be bullies because their behaviors are similar to bullies, such as catching the victim, holding the victim down, and joining in the fighting. However, assistants are distinguished from the bullies in that assistants are always lower than the bullies in power, so bullies never let assistants become too powerful. The number of assistants (8.2% - 8.5%) was reported as similar to the number of bullies (6.8% -10.8%) (Salmivalli, 1999)

The reinforcers. They can boost bullying by demonstrating a variety of behaviors such as giggling, laughing, and inciting the bully by shouting. They are different from the assistants in that they do not join in the bullying directly. Rather, they reinforce the bullies’ behavior by providing feedback as the audience. They tend not to lead or initiate the reinforcing behaviors because they may feel hesitant and uncomfortable at the beginning, but they seem to enjoy the thrill and excitement of indirect participation with the bullying. They seem to lack confidence, so they are less likely to initiate action; rather, they tend to take bullies’ side. The number of reinforcers was reported to outnumber (15.2% - 19.5%) the bullies or the assistants (Salmivalli, 1999).

The outsiders. They pretend not to notice what is happening and therefore do nothing. They also tend to stay outside the situation and take sides with no one. The fact that the outsiders are the majority (23.7% - 32%) of all participants in a bullying situation is important because their actions can change the power dynamic in a bullying situation.

The outsiders' inaction, apathy, and secrecy seem to maintain the bullying culture (Sullivan et al., 2004).

The defenders. They are the students who intervene in a bullying situation by a variety of actions. They comfort and support the victim by saying to the victim (e.g., "Don't care about them"), telling/yelling at the bullies/assistants to stop, staying with the victims during the break or telling some adult(s) about the situation. They can even challenge the bully and assistant groups by attacking these groups or taking revenge on the bully. Unfortunately, research findings show that the number of the defenders (17.3% - 19.6%) is significantly smaller than the outsiders.

Conclusion

This chapter provided a review of the literature on contributing variables to bystanders' psychological and behavioral reactions. Gender, age/grade, race/ethnicity, and social status such as popularity were identified as significant personal variables. Type of bullying, degree of harm, presence of others, and relationship to participants were identified as significant situational variables. Empathy, anxiety, and trauma were reviewed as significant psychological variables that are related with witness experience of bullying. Bystanders' various roles were reviewed as their behavioral reactions. The literature review makes it evident that personal variables and situational variables have significant relationships with bystanders' psychological and behavioral reactions. This review of the literature provides an important theoretical and empirical foundation for this study.

Chapter Three

Methodology

This chapter describes the method for answering the research questions of the current study. A description of the participants, procedures, instruments, research design, and data analysis are presented.

Participants

Three hundred seventeen college students were recruited at a mid-sized state university (>20,000) in the Midwest. There were 19 participants who did not meet the inclusion criteria imposed for this study. Two hundred ninety eight participants met inclusion criteria for analysis in terms of their age (see demographic profile) and the degree of completion of surveys.

Demographic profile of the respondents. Table 3.1 summarizes the demographic profile of the 298 respondents. The participants were 18 to 22 years of age. The participants who were older than 22 years were regarded as non-traditional college students, so they were excluded from the analyses. The majority (71%) of participants were freshmen or sophomore students. Approximately 89% of the participants identified as women, and only 11 % of the participants identified as men. With respect to ethnicity, the sample was predominantly Caucasian (93%) and had limited diversity, including African-American (5%) and Latino/a (1%). American-Indian, Asian-American, and Biracial categories were represented by less than 1% respectively.

Witness experience profile of the respondents. Table 3.2 summarizes the witness experience profile of the 298 respondents who met inclusion criteria for analysis. Most

Table 3.1

Personal Demographics Description of Sample (N=298)

	<i>n</i>	% of sample*	<i>mean</i>	<i>sd</i>
<i>Age</i>			19.1	1.03
18	87	29		
19	124	42		
20	54	18		
21	24	8		
22	9	3		
<i>Gender</i>				
Male	32	11		
Female	266	89		
<i>Race</i>				
African-American/Black	15	5		
American-Indian	2	Less than 1		
Asian-Pacific Islander	1	Less than 1		
Latino/a	3	1		
Caucasian/White	276	93		
Other	1	Less than 1		

Note. *n* = number, *sd* = standard deviation

Table 3.2

Bystanders Witness Experience Description of Sample (N=298)

	<i>n</i>	% of sample*	<i>mdn</i>	<i>mode</i>
<i>Bystanders Reactions</i>			3	3
Assistant of bully (1)	7	2		
Reinforcer of bullying (2)	24	8		
Outsider (3)	161	54		
Defender of victim (4)	91	31		
Missing	15	5		
<i>Grade Witnessing Bullying</i>			9	12
6	46	15		
7	57	19		
8	30	10		
9	28	9		
10	37	12		
11	29	10		
12	66	22		
Missing	5	2		
<i>Bystanders Popularity</i>			3	3
Very unpopular (1)	2	Less than 1		
Less popular than most (2)	41	14		
More popular than most (3)	194	65		
Very popular (4)	52	17		
Missing	9	3		

Note. *n* = number, *mdn* = median * Some percentages do not sum to 100% due to rounding

Table 3.2 Continued

<i>Bystanders Witness Experience Description of Sample (N=298)</i>				
	<i>n</i>	<i>% of sample*</i>	<i>mdn</i>	<i>mode</i>
<i>Frequency of Witness</i>				
Not see others being bullied (1)	3	1	3	3
Scarcely saw bullying (2)	80	27		
Sometimes saw bullying (3)	106	36		
Many times saw bullying (4)	80	27		
Almost Everyday saw bullying (5)	29	10		
Missing	0	0		
<i>Past Experience</i>				
Neither bully nor victim (1)	159	53		1
Only bully (2)	37	12		
Only victim (3)	67	23		
Bully-victim (4)	35	12		
Missing	0	0		
<i>Bullying Type</i>				
Only physical (1)	27	9		2
Only verbal (2)	114	38		
Only social (3)	38	13		
Physical and verbal (4)	43	14		
Verbal and social (5)	54	18		
Physical and social (6)	3	1		
Physical, verbal, and social (7)	17	6		
Missing	2	Less than 1		
<i>Degree of Bullying</i>				
Not at all (1)	16	5	3	3
2	72	24		
3	135	45		
4	55	19		
Very severe (5)	16	5		
Missing	4	1		
<i>Presence of Others</i>				
Absence (1)	9	3		2
Presence (2)	281	94		
Missing	8	3		
<i>Closeness to Bully</i>				
Person that I didn't knew (1)	19	6	2	2
Not friend but person that I knew (2)	141	47		
Just friend that I know (3)	83	28		
My close friend (4)	42	14		
Missing	13	4		
<i>Closeness to Victim</i>				
Person that I didn't know (1)	36	12	2	2
Not friend but person that I knew (2)	164	55		
Just friend that I knew (3)	58	20		
My close friend (4)	29	10		
Missing	11	4		

Note. *n* = number, *mdn* = median * Some percentages do not sum to 100% due to rounding

bystanders (54%) chose to stay outside bullying situations and the number of participants who defended victims (31%) was less than the outsiders. The grades when they witnessed bullying were evenly spread. Forty five percent of the participants recalled bullying events occurring in junior high school, and 55% recalled bullying episodes that happened in high school. Majority of the participants identified themselves as more popular than most.

With regard to frequency of witness of bullying, 72% of the participants said they witnessed at least a couple of bullying episodes a month and almost 10% of the participants stated they saw bullying on a daily basis. More than half answered that they did not have any experience as a bully or victim in the past, and 12% of the participants were identified as bully-victims who experienced both bullying and victimization.

Participants recalled more verbal bullying than physical or social bullying, but 40% recalled bullying was multiple bullying in which more than two bullying types occurred concurrently. Degree of bullying was moderate in most cases and predominantly other bystanders were present when they witnessed bullying. With regard to closeness to bully and victim, most bullies and victims in recalled bullying episodes were participants' friends or acquaintances.

Instruments

Five instruments were used to answer the research hypotheses. The following instruments provided a comprehensive picture of bystander personal, situational, psychological and behavioral variables.

School Bullying Bystander Survey (SBBS). This instrument was used to assess

participants behavioral reactions to school bullying as well as personal variables such as demographic information (See Appendix F). The questionnaire provided a standardized definition of bullying for participants: Bullying means: 1) repeated (not just once) harm to others by hurting others' feelings through words or by attacking and physically hurting others; 2) may be done by one person or by a group; 3) happens on the school grounds or on the way to and from school; 4) is an unfair match like the person doing the bullying is physically stronger or better with words or making friends than the person being bullied. The questionnaire is an expanded and revised form of a survey used in previous research (Carney, 2000; Hazler, Hoover, & Oliver, 1991). The readability and wording of the SBBS were checked by the pilot study.

The questionnaire asked participants to describe one particular bullying episode from their recall. They were then asked to identify a variety of characteristics of the recalled bullying event such as the type of bullying, severity of bullying, information of the victim and bully, and their behavioral reactions. The type of bullying was measured by physical, verbal, and social categories. The severity of bullying was rated on a 5-point likert type scale with response options ranging from "Not at all" (1) to "Very severe" (5). The items asking information of the victim and bully in the episode included their gender, ethnicity, grade, popularity, and relationships with the participant. The participants behavioral reactions were identified by eight different behavioral descriptors that included four different roles of bystanders: Defender, outsider, reinforcer and assistant. The behavioral descriptors were obtained from the Participant Role Scales (PRS) which has been used in several articles as the original form and as modified forms to identify

bystander behavioral reactions to bullying (Camodeca & Goossens, 2005; Salmivalli, Kaukiainen, & Voeten, 2005; Salmivalli et al., 1996). Cronbach's alphas of the PRS and its modified forms were reported as .79 to .93 for the defender subscale, .88 to .93 for the outsider subscale, .90 to .91 for the reinforcer subscale, and .81 to .95 for the assistant subscale. (Camodeca & Goossens, 2005; Salmivalli, Kaukiainen, & Voeten, 2005).

Sample items are "I joined in the bullying when the bully(ies) had started it,"(assistants) "I giggled, laughed, shouting, or similar reactions,"(reinforcers) "Nothing, I pretended not to notice what was happening,"(outsiders) and "I tried to help in some way and was successful."(defenders) The participant's answer was categorized as a defender, an outsider, a reinforcer, or an assistant, and ordinal scales was allotted to defender(4), outsider(3) reinforcer (2), and assistant (1) in terms of the degree of helping behavior for victims. The defenders were also asked to describe briefly what they did in order to help the victim in the recalled episode.

Interpersonal Reactivity Index (IRI; Davis, 1980). The Interpersonal Reactivity Index (IRI) is an instrument which was designed to measure both cognitive and emotional empathy (Davis, 1980). It has not been used frequently in psychotherapy research, but it has been used widely in social psychology. The IRI is composed of 28 items that are rated on a 5-point scale. The response options range from "does not describe me well." to "describe me very well" (See Appendix C).

The IRI consists of four subscales: Perspective Taking, Empathic Concerns, Fantasy and Personal Distress. Perspective Taking refers to a tendency to spontaneously adopt the psychological point of view of others, which is equivalent to cognitive empathy.

The items of this subscale ask students how well they imagine themselves in others' situation. Empathic Concern refers to "other-oriented" feelings of sympathy and concern for unfortunate others, which is equivalent to emotional empathy. A statement about having concerned feelings for those who are less fortunate is included in this subscale. The Fantasy refers to a tendency to transpose themselves imaginatively into the feelings and actions of fictitious characters in books, movies, and plays. Personal Distress refers to "self-oriented" feelings of personal anxiety and unease in tense interpersonal settings. This subscale includes a statement about feeling afraid when in tense and emotional situations. Sample items are "I sometimes find it difficult to see things from the "other guy's" point of view" (perspective taking), "I often have tender, concerned feelings for people less fortunate than me" (empathic concern), "I daydream and fantasize, with some regularity, about things that might happen to me" (fantasy), and "In emergency situations, I feel apprehensive and ill-at-ease" (personal distress).

Davis (1980) reported substantial psychometric properties of the IRI by showing all four subscales have significant reliabilities. Internal reliabilities ranged from .71 to .77 and test-retest reliabilities ranged from .62 to .71. It was also reported that females tended to score higher than males on each of the four scales. Davis (1983) established the validity of the four IRI subscales by identifying the significant relationships between four IRI subscales and potentially related constructs such as social competence, self-esteem, emotionality, and sensitivity to others. The IRI scales also exhibited significant relationships with other empathy measures as well. For example, the Perspective Taking scale was highly correlated with the Hogan Empathy Scale (HES), whereas the Empathic

Concerns scale was highly correlated with the Emotional Empathic Tendency Scale (EETS). The Cronbach's Alpha for the IRI in this study was .80.

State-Trait Anxiety Inventory (STAI; Spielberger, 1983). The third instrument assessed students anxiety levels. Two dimensions of anxiety were measured by the STAI which was designed to assess both state and trait anxiety. The STAI (Spielberger, 1983; Spielberger, Gorsuch, & Lushene, 1970) is one of the most widely used self-report instruments in various settings. Spielberger (1985) noted that the STAI had been successfully applied to high school and college students, adults, military personnel, and a wide range of population. The STAI assesses both anxiety as an emotional state (State Anxiety, See Appendix H) and individual differences (Trait Anxiety, See Appendix D). The STAI consists of 40 items: 20 items measuring state anxiety and 20 items measuring trait anxiety.

The STAI trait scale was constructed by adopting items with high correlations with the Taylor Manifest Anxiety Scale and the IPAT Anxiety Scale (Ramanaiah, Franzen, & Schill, 1983). The items in this scale reflect a participant's general proneness to anxious behavior rooted in the personality (Spielberger, 1966). Sample items are "I worry too much over something that really doesn't matter", "Some unimportant things run through my mind and bother me", and "I take disappointment so keenly that I can't put them out of my mind." Students are asked to rate the items on a 4-point scale according to how they feel in general. The response options are: 1 (almost never), 2 (sometimes), 3 (often), and 4 (almost always).

The STAI state scale was developed by selecting items that produced higher mean

scores in a stressful situation (e.g., taking a test, giving a speech) and lower mean scores in a relaxed situation compared with a neutral situation (Ramanaiah et al., 1983). Sample items are “I feel calm,” “I feel secure,” and “I am tense.” Students are asked to rate the items on a 4-point scale according to how they feel at the moment. The response options are: 1 (not at all), 2 (somewhat), 3 (moderately so), and 4 (very much so). Scores of each item are summed up separately in terms of two different subscales.

Kabacoff and his associates reported reliable psychometric properties of the STAI. Reliable coefficient alphas for each subscale were reported as .90 (trait measure) and .92 (state measure). The consistency of the STAI was measured on the samples of high school and college students for test-retest intervals ranging up to 104 days. The magnitude of the reliability coefficients of the T-Anxiety scale ranged from .65 to .86, whereas the range for the S-Anxiety scale was .16 to .62. The lower level of test-retest reliability for the S-Anxiety scale is expected because the response items reflect the participant’s emotional status at the moment (Center for Psychological Studies, 2006). With regard to validity, trait measure produced significant mean score difference between the person with an anxiety disorder and the person without an anxiety disorder ($p < .05$). Oei, Evans, and Crook (1990) reported distinct two variables of the State-anxiety and Trait-anxiety by using confirmatory variable analysis as well. Reliable coefficients have been presented in the manual between the STAI and other measures of trait anxiety such as the Taylor Manifest Anxiety Scale, the IPAT Anxiety Scale, and the Multiple Affect Adjective Checklist. These correlations are .80, .75, and .52 respectively. The Cronbach’s Alpha for T-Anxiety and S-Anxiety in this study was .86 and .92 respectively.

Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979). The participant's psychological distress was measured by the Impact of Event Scale (IES) (See Appendix G). Several measurements have been used to assess school-aged students' trauma level. Some of them were developed to assess the Post-traumatic Stress Disorder (PTSD) in DSM-IV and others were developed to measure students' broad range of psychological distress. The researcher's preference was to tap students' psychological distress related to a specific event rather than to measure the PTSD severity for diagnosis. The IES satisfied the researcher's preference in that it measured a participant's subjective psychological distress in connection to a particular life event (Horowitz, Wilner, & Alvarez, 1979). The instrument has been used in substantial amount of studies where precipitating events ranged from a ship capsizing to natural disasters, and bullying. It was used in current study as an instrument to measure perceived distress levels at the time of recalled bullying episode. Similar alterations of the time-frame of the IES and its versions have been made by other researchers (Janson & Hazler, 2004; Thompson, 1996).

The IES developed by Horowitz and associates (1979) consists of 15 items asking subjective psychological distress related to a specific event. Seven items of the IES measure intrusive symptoms (e.g., intrusive thoughts, nightmares, intrusive feeling and imagery) and the eight items assess avoidance symptoms (e.g., numbing of responsiveness, avoidance of feelings, situations, and ideas). The two-variable structure is identified as stable over different types of events and can discriminate between stress reactions at different times after the event (Sundin & Horowitz, 2003). However, several competing factor models have been suggested. For example, Larsson (2000) compared

three slightly different models: a single-factor model of general distress; a two-factor model including intrusion and avoidance constructs; and a three-factor model consisting of intrusion, avoidance and sleep disturbance factors. The finding showed that the third model was the best fit of the data. Amdur and Liberzon (2001) employed exploratory principal components analysis to identify item groupings for three and four-factor models consisting of intrusion, avoidance, numbing, and sleep, and their result indicated the four-factor model was the best fit of the data. The most comprehensive recent analyses of the IES supported the four-factor model (Andrews, Shevlin, Troop & Joseph, 2004), thereby providing support for the multidimensionality of both intrusion and avoidance symptoms following traumatic experiences.

Students were asked to rate the items on a 4-point scale according to how often each descriptor had occurred during the period when witnessed bullying. The response options are: 0 (not at all), 1 (rarely), 3 (sometimes), and 5 (often). Scores of each item were summed up separately in terms of two different subscales. The intrusive subscale ranges from 0 to 35 and the avoidance subscale ranges from 0 to 40, then the sum of the two subscales yields the total score. Sample items are “I thought about it when I didn’t mean to” (intrusion) and “I avoided letting myself get upset when I thought about it or was reminded about it” (avoidance). The suggested cut-off point is 26, above which a moderate (26 to 43) or severe (44 and above) impact is implied (Horowitz et al., 1979).

Regarding the psychometric properties, substantial reliability and validity have been reported. Horowitz et al.’s (1979) original study showed that the Cronbach’s alpha was .78 (intrusion) and .82 (avoidance) and the correlation between the two subscales

was reported as .42. They also examined test-retest reliability over a one-week period and the result was .87 for the total scores, .89 for the intrusion, and .79 for the avoidance subscale. A variable analysis to assess the validity of the items supported the major two sub-constructs of the IES (Weiss & Marmar, 1997). Convergent validity has been demonstrated with observer-diagnosed post-traumatic stress disorder as well (Sundin & Horowitz, 2003). The Cronbach's Alpha for the IES in this study was .88.

Social Desirability Scale (M-C Form C; Reynolds, 1982). Social desirability is a tendency of individual's to project their favorable images during social interaction. Current study deals with students' helping behaviors for victims, so less responsive bystanders might present themselves in a manner that will be viewed favorably by others. Psychologists have recognized that personality tests are vulnerable to socially desirable responding (Crowne & Marlowe, 1960). Social desirability bias was screened by the fifth instrument, thus increasing authenticity of participants' responses. If the scores on this instrument are normally distributed for all groups (defender, outsider, reinforcer, and assistant) and means and standard deviations are consistent as well, it can be interpreted that response tendencies were similar and did not impact comparisons across groups.

The original Marlow-Crowne Social Desirability Scale (M-C 33) was developed containing 33 true-false items. Each item measures a tendency of the respondent to portray himself or herself in a socially desirable manner. Several articles investigated the validity of shorter versions of the 33 item (Meyer, 2003; Fraboni & Cooper, 1989; Reynolds, 1982; Zook & Sipps, 1985). Zook and Sipps (1985) recommended the Reynolds' 13-item short form because it was the form most thoroughly studied and it

seemed to be better than all other shorter forms. For the purpose of this study a short form (Marlowe-Crowne Form C) consisting of 13 items was used (Reynolds, 1982). Items are answered as “true” or “false”, and the scores on this instrument range from 0 to 13.

Sample items are “On a few occasions, I have given up doing something because I thought too little of my ability” and “No matter who I’m talking to, I’m always a good listener.” The higher the score, the greater is the tendency of the students to answer in a socially desirable way.

Psychometric studies on the M-C Social Desirability Scale have shown that it is a solid instrument having good statistical properties and it has been appraised in psychological area for more than forty years (Andrews & Meyer, 2003). Studies have reported internal consistency ranging from .72 to .96 (Ballard, 1992; Crowne & Marlowe, 1960; Fischer & Fick, 1993; Loo & Thorpe, 2000; Reynolds, 1982) and one month test-retest correlation of .89 (Crowne & Marlowe, 1960). The short form, M-C Form C, developed by Reynolds (1982) has shown good psychometric properties as well. Reported internal consistency ranged from .62 to .76 (Ballard, 1992; Loo & Thorpe, 2000; Reynolds, 1982; Zook & Sipps, 1985) and six-week test-retest correlation of .74 was reported (Zook & Sipps, 1985). Edens et al. (2001) reported satisfactory criterion-related validity information about the M-C scale. Confirmatory factor analyses by Loo and Loewen (2004) shows that the two-factor model consisting of separate attribution and denial provided best fit with the data. The Cronbach’s Alpha for the M-C Form C in this study was .79.

Procedure

Prior to investigation of the current study, a pilot study was conducted. Twenty six college students participated in the pilot study. The purpose of the pilot study was to test the School Bullying Bystander Survey (SBBS) that was expanded and revised from a survey used in previous research (Carney, 2000; Hazler, Hoover, & Oliver, 1991). The duration of completing surveys was estimated and some wordings were changed based on participants' comments and recommendations. An application to conduct human subject's research was submitted to the Behavioral and Social Science Committee of the Institutional Review Board at The Pennsylvania State University and was approved.

The study was conducted in classroom settings where each participant received a packet including a cover sheet that described the research, confidentiality, and risks, and five paper and pencil instruments. Participants were informed of the purpose of the study (Appendix A) and they were also informed that their participation was anonymous and voluntary, and that they were free to decline to participate at any time. If the participants accepted the informed consent statement, they were forwarded to the demographic questionnaire (Appendix B). No incentive was provided for their participation.

Participants completed first the Interpersonal Reactivity Index (IRI: Appendix C), the trait-subscale of the State-Trait Anxiety Inventory (STAI: Appendix D), and the Marlowe-Crowne Social Desirability Scale with 13 items (M-C Form C: Appendix E). The three instruments measure the participants' dispositional components such as empathy, trait anxiety, and social desirability. Then, they completed the School Bullying Bystander Survey (SBBS: Appendix F), the Impact of Event Scale (IES: Appendix G) and the state-subscale of the STAI (Appendix H). The SBBS asked the participants to

recall one particular bullying event they witnessed and the last two instruments asked them to indicate how they felt when they witnessed the particular bullying episode. Participants were asked to put the completed surveys in the envelope and to return the envelope without any names attached.

Research Design

The purpose of the study was to investigate the contribution of bystanders personal, situational, and psychological variables to their behavioral reactions to school bullying. Psychological variables were also investigated as mediating variables between bystanders behavioral reactions and personal/situational variables. The current study adopted a cross-sectional analysis that assessed participant's characteristics and bullying experience simultaneously. Cross-sectional analysis examines the relationship between different variables at the same point in time, so it may not be possible to distinguish whether one variable preceded or followed another variable.

The current study also adopted a retrospective self-reports method which has been very common method in the field of bullying behavior research (Rivers, 2001). Participants were asked to recall one particular bullying event they witnessed, then they were asked to describe a variety of characteristics of the particular bullying episode. It has been identified that most people's recall of past events remains relatively accurate across time (Baddley, 1990; Ross & Conway, 1986). For example, Olweus (1993) found that former victims were accurate in their estimate of the severity of bullying up to seven years later. Participants were also asked to retrospectively assess their emotional reactions to bullying in terms of state anxiety and trauma levels. It has been identified that state

anxiety can be reliably reported retrospectively by showing significant correlations between retrospective and actual anxiety levels (Hanin, 1980; Tenenbaum & Furst, 1985).

A power analysis was conducted in order to determine the appropriate sample size. With regard to multiple regression, Tabachnick and Fidell (2001) suggested that the minimum number of participants should be larger than $50 + 8(m)$, where m is the number of predictor variables, with a medium effect size and power of .80. The author calculated the minimum sample size for hypotheses #1 and #2 based on the $N \geq 50 + 8(m)$ formula. The current study includes 15 predictor variables (six personal variables, five situational variables, and four psychological variables), so the formula yields 170 as a minimum number of participants. However, one personal variable (bystanders past experience) has three sub-variables (e.g., bullies, victims, and bully-victims) and one situational variable (bullying type) has five sub-variables (e.g., physical, verbal, social, physical and verbal, and verbal and social). When all the sub predictor variables are included, the minimum number of participants is increased up to 218. The number of participants in the current study is 298 which is well above the number estimated.

Data analysis

Hierarchical regression with categorical regression and mediation analysis were used to analyze the data from the School Bullying Bystander Survey (SBBS) and the psychological measurements.

Hierarchical regression. A multiple hierarchical regression method was used to address the following two questions:

Research Question1. Do bystanders personal, situational, and psychological

variables significantly contribute to predicting their behavioral reactions to school bullying?

Research Question 2. What are the direct and indirect effects of bystanders' personal, situational, and psychological variables on their behavioral reactions to school bullying?

The use of hierarchical regression allowed the researcher to enter the independent variables in four blocks in a specific order. Social desirability was entered in first, before all the independent variables were entered, because social desirability was identified as being significantly related with the dependent variable ($r = .15, p < .05$) as shown in Table 4.2. Entering the social desirability in the first step controls the influence of social desirability on the dependent variable. Personal variables (bystanders' gender, race, grade, popularity, past experience of bullying or victimization, and frequency of witnessing bullying) were entered concurrently in the second step because these variables are pre-existing personal qualities that may precede the witness of bullying. Situational variables (witnessed bullying type, degree of witnessed bullying, presence of others, and closeness to bully and victim) were entered in the third step because these variables are based on a particular bullying event which the participant recalled from their past experience. Finally, psychological variables (empathy, trait anxiety, state anxiety, and trauma) were entered in the fourth step in order to determine the contribution of these participants' subjective psychological reactions to bystander behavioral reactions. In this way, the contribution of each variable on bystanders' behavioral reactions was identified.

Mediation Analysis. Using hierarchical regression also allowed the researcher to

identify the direct and indirect effects of bystanders personal, situational, and psychological variables on their behavioral reactions to school bullying. Four-step mediation analysis by Barron and Kenny (1986) was utilized to identify the mediating effects of the bystanders psychological variables between the bystanders personal and situational variables and their behavioral reactions. They have discussed four steps in establishing mediation as shown in Figure 3.1.

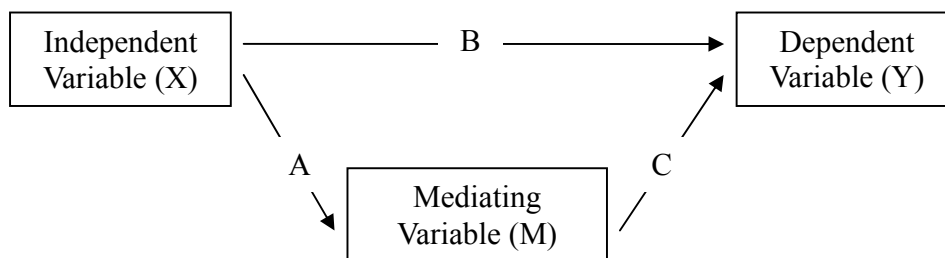


Figure 3.1. Mediation Analysis

- Step1 : Show that the independent variable must affect the mediator in the first equation (arrow A). Use M as the criterion variable and X as a predictor variable.
- Step2 : Show that the independent variable must be demonstrated to affect the dependent variable in the second equation (arrow B). Use Y as the criterion variable and X as a predictor variable.
- Step3 : Show that the mediator must affect the dependent variable in the third equation (arrow C). Use Y as the criterion variable and X and M as predictor variables.
- Step4 : Show that the effect of X on Y while controlling for M in the third equation should be zero or less than the effect of X on Y in the second

equation.

If all four of these steps are met, the data are consistent with the hypotheses that variable M mediates the X-Y relationship. It can be said that the independent variable influences, completely or partially, on the dependent variable through the mediator. Perfect mediation holds if the independent variable has no effect when the mediator is controlled, whereas partial mediation holds if the independent variable has less effect when the mediation is controlled. For this mediation analysis, bystanders personal variables and situational variables were used as the independent variables and their psychological variables were used as the mediator. Bystanders behavioral reactions were used as the dependent variable.

Categorical Regression. The dependent variable, bystanders behavioral reactions, was measured as ordinal. Bystanders reactions to bullying were converted to ordinal scales in terms of the degree of involvement: bully assistant (1), reinforcer of bullying (2), outsider (3), and defender of victims (4). The ordinal dependent variable is not appropriate (in its raw form) for standard linear regression analysis (Berry, 1993). The researcher utilized categorical regression which is a relatively new statistical program. The categorical regression analysis uses optimal scaling procedure which rescales the original ordinal variables into transformed continuous variables (SPSS, 2004). After ordinal variables were rescaled and quantified through categorical regression, the researcher used hierarchical regression with the rescaled values to answer the research questions. Categorical variables with more than two categories (e.g., past experience and bullying type) were coded as dummy variables instead of being rescaled in order to avoid

a danger of overfitting the model. For example, bystander past experience was dummy coded using those who were neither bullies nor victims as a base value, and bullying types were dummy coded using who witnessed all three bullying behaviors (physical, verbal, and social) concurrently as a base value. For other categorical variables, gender was coded as “1” for male and “2” for female. Race was coded as “1” for White and “2” for non-White. Presence of others was coded as “1” for absence and “2” for presence.

Chapter Four

Results

The purpose of this study was to examine the contribution of bystanders personal, situational, and psychological variables to their behavioral reactions to school bullying. The findings presented in this chapter are the results based on the following two research questions:

1. Do bystanders personal, situational, and psychological variables significantly contribute to predicting their behavioral reactions to school bullying?

Hypothesis 1: The bystanders independent variables (personal, situational, and psychological variables) account for a significant portion of the variance of their behavioral reactions.

2. What are the direct and indirect effects of bystanders personal, situational, and psychological variables on their behavioral reactions to school bullying?

Hypothesis 2: The bystanders psychological variables mediate between the independent variables (personal and situational variable) and their behavioral reactions to school bullying.

Prior to answering the two research questions, a variety of preliminary analyses including descriptive statistics and bivariate correlations were conducted. Because the dependent variables and many independent variables were measured as ordinal, categorical regression with optimal scaling was used. Finally, hierarchical regression with rescaled data by optimal scaling procedure was used in order to answer the research questions.

Pre-analysis

A total of 317 individuals participated in the study, but there were individuals who did not meet the inclusion criteria imposed for this study. Five participants who were older than 22 years old were excluded because they were identified as non-traditional college students, thereby minimizing the retrospective period of bystanders experience. 14 participants (4%) who did not complete the School Bullying Bystanders Survey (SBBS) were also excluded, because the current study focused on bystanders who witnessed bullying at least one time. As a result, the final analysis for the research questions was run with 298 participants.

Replacement of missing data. First, the amount of non response was investigated. No missing data were found in demographic variables (e.g., age, gender, and race), but a dependent variable and several situational variables included missing data: bystanders behavioral reactions (5%), grade when witnessed bullying (2%), bystanders popularity (3%), bullying type (1%), degree of bullying (2%), presence of others (3%), closeness to bully (5%), and closeness to victim (4%).

Next, a pattern of missing data was examined by inspecting missing data visually and by exploring descriptive statistics. For example, the researcher conducted descriptive statistics for 15 participants who did not identify their reactions to bullying (dependent variable) and found that their responses to other items (all independent variables) did not show any significant difference or pattern. Missing values were identified as being scattered randomly through this process, thereby posing no serious problems (see Tabachnick & Fidell, 2001). Based on the random nature of the missing data, the median

or mode was imputed in order to prevent a substantial loss of cases. Several strategies were adopted to estimate the missing data.

Prior knowledge was used when the missing data was confidently estimated based on the researcher's knowledge. This is a recommended method when the sample is relatively large and the number of missing values is small (Tabachnick & Fidell, 2001). For example, five participants did not identify their grades when witnessing bullying, but they identified the grades of the bully or victim. Since the data set shows that 77% of bullies and 76% of victims were in the same grade as the bystander, the bystanders grades were imputed with the bully's or the victim's grade.

Other strategies were applied when the researcher's prior knowledge did not provide confidence in imputation. Missing data were imputed with a mode value when the variables were categorical (e.g., a type of bullying) and median value was used when the missing data were ordinal variables (e.g., a frequency of witnessing bullying). Unlike the single item scales measuring personal and situational variables in SBBS, psychological variables (e.g., empathy, anxiety, and trauma) were measured by multiple items scaling. Psychological variables also included missing data: empathy (less than 1%), trait anxiety (1%), state anxiety (7%), and trauma (3%). Each missing item was imputed with the median value of each scale item, because each item is an ordinal variable. The imputation of the multiple item scales was conducted only if more than 80% of the items were completed in each instrument.

Univariate Analysis

Summary Statistics of Scales. The means, standard deviations, maximum, and

minimum for scores of all measures are presented in Table 4.1.

Table 4.1

Summary Statistics for Psychological Scales

	<i>m (male, female)</i>	<i>sd</i>	Range (Possible Range)
Empathy (N = 297)	68.61 (57.47, 69.95)	11.16	26 – 95 (0 – 112)
Trait Anxiety (N = 298)	40.75 (39.24, 40.92)	8.67	22 – 72 (20 – 80)
State Anxiety (N = 291)	53.12 (42.97, 54.43)	12.10	20 – 80 (0 – 80)
Trauma (N = 295)	14.58 (10.69, 15.06)	11.95	0 – 55 (0 – 75)
Social Desirability (N=298)	5.79 (5.63, 5.81)	2.76	0 – 13 (0 – 13)

Note. *m* = mean, *sd* = standard deviation

The mean of the empathy variable suggests that bystanders in this sample have moderate levels of empathy compared to the means of the norm groups (Davis, 1980; $m = 61.01$ for males and $m = 70.66$ for females). The mean of the trait anxiety variable indicates that the participants in this study have average levels of trait anxiety compared to the means of the norms reported in the manual (Spielberger, 1983; $m = 38.3$ for male college students and $m = 40.4$ for female college students). The mean of the state anxiety variable suggests that bystanders in this sample experienced significantly higher levels of anxiety when they witnessed bullying, because the means of the norms were 36.5 for male college students and 38.8 for female college students (Spielberger, 1983). The mean of the trauma variable suggests that bystanders in this sample experienced moderate levels of trauma when they witnessed bullying, because the range between 8.6 to 19.0 was identified as experiencing medium levels of trauma (Horowitz, 1982). The mean of the social desirable responding suggests that bystanders have a moderate need for approval compared to the means of the norms (Reynolds, 1982; $m = 5.67$ for students).

Variable transformations. The normality of each psychological variable was assessed by examining the skewness of distribution. Examination of histogram charts and the ratio of skewness to its standard error presented that trauma (6.40) and trait anxiety (3.76) were skewed positively and empathy (-4.51) was skewed negatively. A rule of thumb is that the absolute value of the ratio of skewness to its standard error should be less than 2. In order to normalize these skewed variables, a square-root transformation was conducted for positively skewed trauma and trait anxiety. The transformation substantially corrected the skewness of distribution by bringing the ratio of the skewness to the standard error within the acceptable range to -1.40 (trauma) and 1.78 (trait anxiety), respectively. A power transformation was applied to the negatively skewed empathy variable, which brought the ratio of the skewness to the standard error to .45, within the acceptable range. The transformed empathy, trait anxiety and trauma values were converted to T scores again in order to enhance the feasibility of interpretation.

Optimal Scaling

The researcher used a categorical regression in order to address research questions because the dependent variable and many independent variables were ordinal. The ordinal dependent variable is not appropriate (in its raw form) for standard linear regression analysis (Berry, 1993). The researcher utilized categorical regression, which is a relatively new statistical program (SPSS, 2004). The categorical regression analysis uses optimal scaling procedure which rescales the original ordinal variables into transformed continuous variables. A categorical regression quantifies categorical data by assigning numerical values to the categories, which is called optimal scaling. The optimal

scaling procedure rescales independent and dependent variables by seeking to maximize the relationship between the two. In other words, categorical regression optimally rescales each independent and dependent variable taking into account all independent variables, thereby maximizing the effects of all independent variables. Rescaled variables by optimal scaling procedure allow standard procedures to be used because rescaled values have numeric properties. (SPSS, 2004).

Figure 4.1 is the transformation plot illustrating the relationship between the quantifications and the original categories. It shows how the optimal scaling procedure assigned numerical quantifications to the categories of bystanders: assistant, reinforcer, outsider, and defender. Since the variable was defined as ordinal, the rescaling of values resulted in a non-decreasing transformation plot where rescaled values were assigned to the original categories.

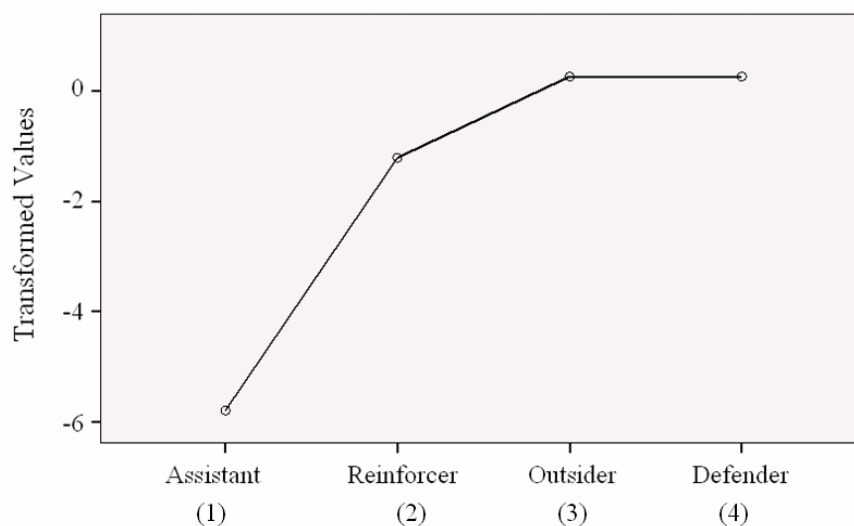


Figure 4.1
Transformation Plot Depicting Optimal Scaling of the Dependent Variable for Bystanders

The order of the optimized new categories along the line corresponds to the order of the original categories, but the original difference (1.00) between original assistant (1) and reinforcer (2) categories is different from the rescaled difference (4.59) between the new bully assistant (-5.80) and reinforcer (-1.21). The rescaled values, or transformed values, are obtained through an iterative method in which the quantifications keep updating to find the best solution until some criterion is reached (SPSS, 2004).

The transformation plot shows that there exists more difference (4.59) between the assistant and the reinforcer than the difference (1.47) between the reinforcer and the outsider. The outsiders and the defenders, however, receive the same quantification. It implies that the effects of the independent variables were stronger on assistant, reinforcer, and outsider, but there is no differentiation between outsider and defender. As a result, the current study is more robust in identifying negative behaviors (assistant and reinforcer) than identifying positive ones (defender combined with outsider). Appendix I shows how other ordinal independent variables were transformed by the optimal scaling procedure.

Bivariate Analysis

Table 4.2. It shows Pearson correlations among the variables. The correlation matrix, Table 4.2, demonstrated that the dependent variable, bystanders behavior, was significantly related to four personal variables such as bystanders gender, race, popularity, and frequency of witness. Bystander behaviors were also significantly related to one situational variable, closeness to the bully. With regard to psychological variables, empathy and state anxiety were significantly related to the dependent variable. Social desirability was also significantly related to the dependent variable.

Personal variables. Correlation analyses revealed that gender was positively and significantly correlated to bystander behaviors, and female bystanders were more likely to show more positive behaviors. Only 7% of female bystanders showed negative behavior by either assisting or reinforcing the bully, but 41% of male bystanders were reported to show the same negative reactions to bullying. Race was significantly and negatively correlated with bystander behavior.

Race was categorized as white (276) and non-white (22). The category of non-white was used because only a limited number of minorities participated (15 African-American, two American-Indian, one Asian Pacific Islander, three Latino/a, and one biracial participant). It suggests that non-white bystanders are less likely to show positive behavior. The fact that 23% of the non-white bystanders were assistants or reinforcers in the bullying, and only 9% of white bystanders were assistants or reinforcers supports the significant negative correlations.

Bystander popularity was also significantly and negatively correlated with behaviors, thereby suggesting that the more popular the bystanders, the less likely they would show positive behaviors. Crosstab analysis supports this relationship by revealing that 27% of very popular bystanders were assistants or reinforcers of bullying, but only 5% of less or unpopular bystanders were assistants or reinforcers.

Frequency of witnessing bullying was found to be negatively and significantly correlated with bystander behavior implying that the more bystanders witness bullying, the less likely they would show positive behavior. Another personal variable, bystanders grade when they witnessed bullying, was not found to be significantly related to

bystander behaviors.

Situational variables. Bystander closeness to bully was the only variable which was negatively and significantly correlated with bystanders behavior. This indicates that the closer a relationship the bystanders had with the bullies, the less likely they were to show a positive reaction. When the bullies were the bystanders' close friend, 31% of the bystanders showed negative reactions by assisting bullies or reinforcing bullying, but only 6% of bystanders assisted or reinforced bullying when the bullies were not friends. Other situational variables—degree of bullying, presence of others, and closeness to victim were not found to be significantly related to bystanders behavior.

Psychological variables. Correlation analyses revealed that empathy was positively and significantly correlated with bystander behaviors. This suggests that the higher the bystander empathy, the more likely the bystanders were to show positive behaviors. State anxiety was also found to have positive and significant correlations with bystanders behavior. This indicates that the higher the anxiety the bystanders experienced when witnessing bullying, the more likely they were to show positive behavior. Bystanders trait anxiety and trauma level were not found to be significantly related to their behaviors.

Results for Research Question One

Research question one sought to investigate the relationship between bystander behavioral reactions and their personal, situational, and psychological variables. Specifically, the question was: Do bystanders personal, situational, and psychological variables significantly contribute to predicting their behavioral reactions to school

bullying? Hierarchical regression was conducted to answer the research question, because it allows the researcher to enter variables into the equation in a specific order to assess the amount of variance each variable predicts (Tabachnick & Fidell, 2001). Table 4.3 summarizes the results of the hierarchical regression equations predicting bystander behavioral reactions.

In the first step in the regression equation, social desirability, explained a significant amount of the variance of bystanders behaviors ($R^2 = .021$, Adjusted $R^2 = .018$, $p = .014$). It implies that the more the bystanders reacted to bullying positively, the more likely they were to show socially desirable responses to question in general ($\beta = .146$, $p = .014$). In the second step, the addition of personal variables also accounted for a significant amount of the variance of bystanders behavior ($R^2 = .202$, Adjusted $R^2 = .176$, $\Delta R^2 = .180$, $p < .0005$). Specifically, gender ($\beta = .259$, $p < .0005$) and past experience as a bully ($\beta = -.156$, $p = .011$) or bully-victim ($\beta = -.141$, $p = .018$) were found to be significant predictors. When these personal variables were added, the social desirability became non-significant ($\beta = .067$, $p = .225$).

In the third step, the addition of the situational variables significantly contributed to the variance of bystanders behavior ($R^2 = .348$, Adjusted $R^2 = .304$, $\Delta R^2 = .146$, $p < .0005$). In particular, all different bullying types were found to be significant predictors of bystander behavior: Physical ($\beta = .182$, $p = .015$), verbal ($\beta = .341$, $p = .002$), social ($\beta = .259$, $p = .002$), physical and verbal ($\beta = .217$, $p = .012$) and verbal and social ($\beta = .199$, $p = .033$). Presence of others when witnessing bullying was found to be

Table 4.3
 Summary of Regression Analysis for Variables Predicting Bystander Behaviors ($N = 290$)

Variables	Step 1		Step 2		Step 3		Step 4	
	β	p	β	p	β	p	β	p
Social Desirability	.146	.014*	.067	.225	.039	.454	.040	.471
Gender			.259	.000**	.204	.000**	.153	.008*
Race			-.083	.127	-.081	.113	-.066	.195
Bystanders Grade			.037	.511	.056	.287	.064	.219
Bystanders Popularity			-.065	.251	.020	.714	.040	.466
Frequency of Witnessing			-.090	.129	-.082	.161	-.087	.137
Past Experience								
Bullying			-.156	.011*	-.108	.058	-.102	.072
Victimization			.052	.392	.031	.590	.008	.889
Bullying and Victimization			-.141	.018*	-.147	.008**	-.163	.003**
Bullying Type								
Physical					.182	.015**	.189	.011*
Verbal					.341	.002**	.386	.001**
Social					.259	.002**	.289	.001**
Physical and Verbal					.217	.012*	.228	.008**
Verbal and Social					.199	.033*	.233	.012*
Degree of Bullying					.037	.513	.042	.456
Presence of Others					.113	.029*	.098	.057
Closeness to Bully					-.339	.000**	-.335	.000**
Closeness to Victim					.135	.009**	.134	.009**
Empathy							.045	.437
Trait Anxiety							.029	.606
State Anxiety							.169	.009**
Trauma							-.145	.014*
Model F and (p)	6.180 (.014*)		7.722 (.000**)		7.877 (.000**)		7.152 (.000**)	
Total R ²	.021		.202		.348		.375	
Adjusted R ²	.018		.176		.304		.323	
R ² Change	.021		.181		.146		.027	

Note. * $p < .05$ ** $p < .01$. Both coefficients (b and Beta) are same because optimal scaling procedure rescaled original values into optimal standardized values.

significant ($\beta = .113, p = .029$) and closeness to bully ($\beta = -.339, p < .0005$) and victim ($\beta = .135, p = .009$) were found to be significant predictors as well.

The addition of psychological variables in the final step also accounted for a significant change in contribution to the variance of bystanders behavior ($R^2 = .375$, Adjusted $R^2 = .323$, $\Delta R^2 = .027, p = .024$). Specifically, state anxiety ($\beta = .169, p = .009$) and trauma ($\beta = -.145, p = .014$) were found to be significant predictors.

Results for Research Question Two

Research question two examined the direct and indirect effects of the bystanders personal, situational, and psychological variables on their behavioral reactions by investigating the mediating effect of the psychological variables. Barron and Kenny (1986) discussed four steps in establishing mediation. In the first step, the independent variables (e.g., personal and situational variables) must affect the mediator (e.g., psychological variables such as empathy, anxiety, and trauma). In the second step, the independent variable must demonstrate influence on the dependent variable (e.g., bystanders behavioral reactions). In the third step, the mediator must significantly predict the dependent variable when both independent and mediator are used as predictors. In the final step, the effect of the independent variable on the dependent variable must be less in the third step than in the second step.

Step 1: Independent variables to the mediators. Separate multiple regressions were conducted to investigate the contribution of independent variables (personal and situational variables) to each mediator (empathy, trait anxiety, state anxiety and trauma). Table 4.4 summarizes the results of the regression equations predicting each mediator.

Table 4.4
Summary of Regression Analysis for Variables Predicting Empathy, Trait Anxiety, State Anxiety, and Trauma (N = 290)

Variables	Empathy		Trait Anxiety		State Anxiety		Trauma	
	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>	β	<i>p</i>
Gender	.324	.000**	.078	.203	.292	.000**	.104	.098
Race	-.096	.084	-.026	.660	-.095	.090	-.043	.475
Bystanders Grade	-.010	.864	-.040	.503	-.075	.195	-.044	.481
Bystanders Popularity	-.118	.049*	-.198	.002**	-.085	.159	-.036	.579
Frequency of Witnessing	.044	.492	.078	.248	.109	.093	.125	.070
Past Experience								
Bullying	-.132	.035*	-.051	.432	-.040	.525	-.056	.404
Victimization	.132	.037*	.118	.075	.077	.225	-.004	.958
Bullying and Victimization	-.004	.946	.143	.024*	.091	.136	.027	.678
Bullying Type								
Physical	-.099	.228	.028	.743	-.097	.290	-.077	.380
Verbal	-.092	.443	-.008	.949	-.194	.110	.053	.683
Social	-.089	.337	-.050	.607	-.156	.093	-.012	.906
Physical and Verbal	-.020	.836	-.063	.525	-.065	.495	-.021	.836
Verbal and Social	-.078	.442	-.065	.540	-.104	.310	.077	.481
Degree of Bullying	.060	.333	.066	.311	.068	.278	.146	.029*
Presence of Others	-.027	.629	-.009	.882	.068	.232	-.036	.558
Closeness to Bully	.139	.018*	.188	.002**	-.090	.128	.006	.919
Closeness to Victim	.030	.592	.044	.460	.059	.303	.080	.189
Model F and (<i>p</i>)	4.209 (.000**)		2.358 (.002**)		3.892 (.000**)		1.477 (.102)	
Total R ²	.211		.132		.199		.086	
Adjusted R ²	.161		.077		.148		.028	

Note. **p* < .05 ***p* < .01. Both coefficients (*b* and Beta) are same because optimal scaling procedure rescaled original values into optimal standardized values.

The regression models revealed that empathy ($R^2 = .211$, Adjusted $R^2 = .161$, $p < .0005$), trait anxiety ($R^2 = .132$, Adjusted $R^2 = .077$, $p = .002$) and state anxiety ($R^2 = .199$, Adjusted $R^2 = .148$, $p < .0005$) were significantly predicted by personal and situational variables. The personal and situational variables did not significantly predict bystander trauma ($R^2 = .086$, Adjusted $R^2 = .028$, $p = .102$). Thus, only empathy, trait and state anxiety met the first mediation criteria, and trauma was excluded from the next step.

Step2: Independent variables to dependent variable. The results to research question one completely answer the relationship between independent variables and dependent variables. As explained in the previous section, bystanders behavioral reactions were significantly predicted by their personal and situational variables ($R^2 = .348$, Adjusted $R^2 = .304$, $p < .0005$), and therefore met the second criterion for mediation analysis.

Step3: Mediator with independent variables to dependent variable. The results to the research question also answer the criterion of step 3. As discussed in the previous section, state anxiety was a significant predictor of the bystanders behavior ($\beta = .169$, $p = .009$), and empathy and trait anxiety were not significant predictors in the model. As a result, only state anxiety met the criteria until step 3.

Step4: Comparison of the effects of independent variables in step 2 and step 3.

Another hierarchical regression analysis was conducted in order to identify the mediating effects of state anxiety which satisfied the three criteria of mediating analysis. In order to examine the unique mediating effect of state anxiety, only the state anxiety of psychological variables was entered in the equation. Table 4.5 summarizes the results of

Table 4.5
Summary of Regression Analysis for State Anxiety Mediating Bystanders Behavior (N = 290)

Variables	Step 1		Step 2		Step3	
	β	p	β	p	β	p
Social Desirability	.146	.014*	.039	.454	.046	.374
Gender			.204	.000**	.171	.002**
Race			-.081	.113	-.069	.173
Bystanders Grade			.056	.287	.064	.217
Bystanders Popularity			.020	.714	.030	.579
Frequency of Witnessing			-.082	.161	-.094	.108
Past Experience						
Bullying			-.108	.058	-.103	.069
Victimization			.031	.590	.022	.701
Bullying and Victimization			-.147	.008**	-.157	.005**
Bullying Type						
Physical			.182	.015*	.192	.010*
Verbal			.341	.002**	.361	.001**
Social			.259	.002**	.277	.001**
Physical and Verbal			.217	.012*	.224	.009**
Verbal and Social			.199	.033*	.209	.024*
Degree of Bullying			.037	.513	.029	.609
Presence of Others			.113	.029*	.105	.041*
Closeness to Bully			-.339	.000**	-.329	.000**
Closeness to Victim			.135	.009**	.128	.013*
State Anxiety					.114	.039*
Model F and (p)	6.180 (.014*)		7.877 (.000**)		7.791 (.000**)	
Total R ²	.021		.348		.358	
Adjusted R ²	.018		.304		.312	
R ² Change	.021		.327		.010	

Note. * $p < .05$ ** $p < .01$. Both coefficients (b and Beta) are same because optimal scaling procedure rescaled original values into optimal standardized values.

the hierarchical regression analysis exploring the mediating effects between bystanders personal and situational variables and their behavioral reactions by state anxiety.

Complete mediation was not identified because even in the presence of the state anxiety, many independent variables continued to provide evidence of a significant relationship to the dependent variable. The results show that the effects of many independent variables on dependent variables (e.g., gender, race, past experience as a bully and victim, presence of others, closeness to bully and victim) were diminished when state anxiety was added to the equation. On the contrary, the effects of some independent variables on dependent variables (e.g., grade, popularity, frequency, past experience as a bully-victim, and bullying types) were increased when state anxiety was added to the equation.

Chapter Five

Discussion

This chapter includes a summary of the results presented in Chapter 4. Implications for practice are discussed and limitations of the study are presented. Recommendations for future research are suggested as well.

Research Question One

Research question one sought to identify the contribution of bystanders personal, situational, and psychological variables to predicting their behavioral reactions. In particular, it was hypothesized that bystanders independent variables (personal, situational, and psychological variables) would account for a significant portion of the variance of their behavioral reactions. Hierarchical regression analysis was used to investigate the contribution of each independent variable in predicting bystander behavioral reactions. The results revealed that each personal, situational, and psychological variables significantly predicted bystander behavioral reactions.

Personal variables. Bystander personal variables were collected by the School Bullying Bystander Survey (SBBS) and six variables were selected: Bystander gender, race, witnessing grade, popularity, frequency of witnessing, and their past experience as a bully, victim, or bully-victim. The group who experienced both bullying and victimization is called “bully-victim.” Bystanders gender and their past experience as a bully or bully-victim were found to be significant predictors of their behavior.

Gender. The results indicated that gender was one of the strongest personal predictors of bystanders behaviors. It implies that female bystanders would be more

likely to help victims than males. This finding is supported by past studies showing that girls were more likely to support victims than boys (O'Connell et al, 1999) and boys were more frequently in the roles of reinforcer or assistant. The most frequent roles of the girls were those of defender or outsider (Salmivalli et al., 1996). A study by Burlinson and Gilstrap (2002) also indicated that women, compared to men, were less inclined to pursue escaping and more inclined to pursue comforting in support situations.

The gender difference in the bystanders role seems to be related to their perceptions of effective intervention strategies. Several researchers identified that girls were more likely to use more constructive resolution by choosing assertive and prosocial strategies than boys (Camodeca & Goossens, 2005; Cowie, 2000). This study supports current study findings. One of the items of the School Bullying Bystander Survey (SBBS) asked participants to report their effective strategies for bullying (e.g., "What do you think is the best thing you should have done in the bullying event?"). Answers were grouped into three categories: retaliation (e.g., hit or push the bully back), nonchalance (e.g., pretend not to notice), and assertiveness (e.g., report to someone else). More male bystanders (15%) chose retaliation as a best strategy, whereas only 1% of female bystanders regarded retaliation as a best strategy. Fewer male bystanders chose assertiveness as a best strategy (67%), but 90% of female bystanders identified assertiveness as a best strategy.

Past experience. Past experience as a bully or bully-victim was another significant predictor of bystander behavioral reactions. Bystanders who were bullies or bully-victims were less likely to help victims than those who just witnessed bullying

without having any past experience of bullying and victimization. It has been found that bullies are aggressive, hostile, and intimidating toward peers (Olweus, 1995) and they also have a positive attitude toward aggression (Slee & Rigby, 1993). The bullies' more aggressive and hostile tendency seems to be related to bystanders reluctance to help victims when they witness bullying.

Bully-victims are the most challenging group of students and most researchers think that this group of students comprises a special category (Macklem, 2003). They are disruptive, argumentative, and become easily frustrated and upset when they are not satisfied (Perry, Hodges, & Egan, 2001). They are also regarded as not responding appropriately in conflict situations because of having difficulty reading social signals and controlling impulses (Macklem, 2003). Olweus (2001) pointed out that because bully-victim behavior is often irritating and creates tension in group situations, bully-victims usually escalate conflict in social situations by using retaliation and offensive reactions. These studies support that bully-victims were more likely to show negative reactions to bullying. When bystanders were categorized into four groups: bystanders who were neither bullies nor victims, bystanders who were bullies, bystanders who were victims, and bystanders who were bully-victims, fewer numbers of bully-victims (14%) defended victims compared with other groups. For example, 33% of bystanders who were neither bullies nor victims, 31% of bystanders who were bullies, and 32% of bystanders who were victims defended victims.

Situational variables. Five variables from the School Bullying Bystander Survey (SBBS) were used: Bullying type, degree of bullying, presence of others, and closeness

of the bystander to the bully and victim. All the variables except degree of bullying significantly contributed to predicting bystander behavior.

Bullying types were categorized into 6 groups: Only physical (9%), only verbal (39%), only social (13%), physical and verbal (14%), verbal and social (18%), and all (physical, verbal, and social) (7%). A high proportion of verbal or social bullying was expected because most participants were female (89%). Girls prefer indirect and verbal bullying, while boys are more involved in physical bullying (Alsaker & Vakanover, 2001). In particular, girls are more involved in social or relational bullying than boys.

Bullying type. Bullying types were found to be significant predictors of bystander behavior. Bystanders who witnessed less than three types of bullying were more likely to show positive reactions compared to those who witnessed all three types of bullying behaviors in one event. Bullying including all three types of bullying behaviors concurrently seems to be more threatening to bystanders, thereby they may be reluctant to defend victims. It suggested plausible correlations between the complexity of bullying (e.g., single, double, and triple bullying) and bystander behavior. Supplementary categorical regression yielded that the more complicated bullying is, the less likely bystanders would defend victims. The results confirm that a multitude of bullying types is a significant predictor of bystander behavior.

Presence of others. Presence of others significantly predicted bystander reaction. Bystanders were more likely to show positive reactions when other bystanders were present. This result is opposite of the general bystander effect (Latané & Darley, 1970). The bystander effect claims that bystander perceptions of other people's presence

significantly reduce the possibility of their helping behaviors. Based on this theory, the current research assumed that bystanders' defending behavior for victims would significantly decrease when they perceive other people's presence. On the contrary, the results demonstrated that bystanders would be more likely to show positive reactions when someone is present.

Several interpretations might explain the difference from the general bystander effect. First, the bystander effect assumes when someone is present, the bystanders may demonstrate two different reactions (e.g., helping behavior or ignoring behavior) in emergency situations. The categories of defender and outsider in this study correspond to these two reactions, respectively. The categorical regression model by optimal scaling procedure did not differentiate these two groups as shown in Figure 4.1. The current model cannot then fully test the hypothesis of the bystander effect. Rather, it would be more appropriate to interpret the result as a bystander being more likely to show negative reactions (e.g., assisting bullying) when no one is present. More bystanders assisted the bullies (11%) when no one was present, while only 3% of the bystanders assisted the bullies when someone was present. The fact that the bystanders' negative reactions to victims increased when no one is present is understandable, because they would not be concerned that their behaviors assisting bullies would be evaluated negatively by other witnesses when no one is present.

In their investigation of how bystander intervention is affected when fellow bystanders are present, Levine et al.'s (2002) study yielded the same results as the current study. Their study also showed results that were opposite to the general bystander effect,

and revealed that the presence of someone else who shared group membership with the bystander increased bystander intervention. Their finding implies that the bystander effect is mediated by the relationship among bystanders, but the current study did not examine the relationship among bystanders. Future research including more situational variables (e.g., relationships among bystanders) could help clarify the validity of the bystander effect in school bullying. Their findings suggest that opposite results to a bystander effect in this study might also be caused by other mediating effects.

Closeness to bullies or victims. Closeness to bullies or victims was found to be a significant predictor for the dependent variable. The closer the relationship between bystanders and bullies, the more likely the bystanders were to show negative reactions, whereas the closer the relationship between bystanders and victims, the more likely bystanders were to show positive reactions. This finding supports several other studies (Chaux, 2005; Levine, Cassidy, & Brazier, 2002). Chaux (2005) found that bystanders were more likely to support the member of the bullying incident that the bystanders were closer to. Levine, Cassidy, and Brazier (2002) also identified bystanders as being more likely to help victims who were described as in-group as opposed to out-group members. The results of the current study confirmed their findings by revealing that bystanders closeness to the bully predicted negative behavior such as assisting or reinforcing bullying. All bully assistants in the current study were close friends to the bullies. On the contrary, bystander closeness to victim predicted their less negative behaviors such as staying outside or defending victim. Therefore, it appears that bystanders relationship with bullies or victims play a role in their reaction.

Psychological variables. Four variables were used for psychological variables: bystander empathy, trait anxiety, state anxiety and trauma. Correlation analyses yielded that empathy and state anxiety were significantly related to bystander reactions. Hierarchical regressions also identified that state anxiety and trauma were found to be significant predictors of bystander reaction. The two coefficients of state anxiety and trauma have different directions, so the higher anxiety the bystander in the bullying situation, the more likely they would show positive reactions. The higher the trauma experienced by bystanders in the bullying situation, the more likely they would show negative reactions.

Empathy. Empathy in this study was significantly and positively correlated with bystander reactions. Higher bystanders empathy levels were related to positive reactions. This finding supports many studies that examined associations between empathy and prosocial behavior including helping behavior (Bengtsson & Johnson, 1992; Betancourt, 1990; Eisenberg, Zhou, & Koller, 2001; Guozhen, Li, & Shengnan, 2004; McMahon, Wernsman, & Parnes, 2006; Robert & Strayer, 1996). It has to be noted that empathy was correlated to bystander reaction in correlation analyses, but it did not significantly predict the bystander reaction in hierarchical regressions. This contradicting result is explained by the mediating effect of gender between bystanders empathy and their behavior. In other words, empathy itself was a significant predictor of bystander behavior ($\beta = .172$, $p = .004$) and it was also a significant predictor of bystander gender ($\beta = .104$, $p < .0005$). Empathy, however, became non-significant ($\beta = .069$, $p = .248$) when bystander gender was entered concurrently in the model, thereby suggesting that the effects of empathy on

bystander behavior are mediated by gender.

This result supports other studies. Empirical researchers have consistently found that females have higher levels of empathy than males (Gault & Sabini, 2000; Lennon & Eisenberg, 1987; Macaskill, Maltby, & Day, 2002; Schieman & Van Gundy, 2000), and empathy has been identified as being related with prosocial behaviors including helping (Bengtsson & Johnson, 1992; Betancourt, 1990; Eisenberg, Zhou, & Koller, 2001; Guozhen & Shengnan, 2004; McMahon, Wernsman, & Parnes, 2006; Robert & Strayer, 1996). Therefore, it seems that female bystanders higher empathy may promote them to react to bullying situations more positively than male bystanders.

State anxiety. Few studies have examined the relationship between anxiety and helping behavior and the findings are contradictory. McGovern (1976) found that people with low social anxiety helped significantly more often than people with high social anxiety. McPeck and Cialdini (1977) revealed that individuals with moderate social anxiety showed increased helping behavior, but individuals with low social anxiety did not. The current study shows that the bystanders who experienced higher state anxiety were more likely to show positive reactions. The bully assistants ($m = 38.86$) and the bullying reinforcers ($m = 49.50$) experienced lower levels of anxiety than the outsiders ($m = 54.38$) and the defenders of victim ($m = 52.79$). The difference was significant ($F(3,291) = 4.78, p = .003$).

Outsiders showed the highest level of anxiety, so due to their higher state anxiety, they might choose to stay away from the bullying or pretend not to notice what was happening. Defenders also demonstrated higher levels of anxiety than the bully assistants

or bullying reinforcers. The defenders might feel anxious while helping victims because they might worry about retaliation by the bullies. Results show that bully assistants or bullying reinforcers experienced relatively less anxiety than other groups, so it seems that their lower anxiety may facilitate their negative reactions, or the negative reactions may desensitize their anxious reactions.

Trauma. Bystander trauma levels were measured by the Impact of Event Scale (IES) and it assessed their symptoms to witnessing bullying in terms of intrusion and avoidance. Intrusion symptoms happen when bystanders relive the bullying events by experiencing flashbacks or nightmares. Avoidance symptoms occur when bystanders unconsciously try to avoid any bullying related events. Bystander trauma level was found to be a significant predictor of their behavioral reactions. The bystanders who experienced higher levels of trauma were less likely to show positive reactions to bullying. The direction of prediction by trauma is opposite to that of anxiety. If the two models are combined, it can be said that the bully assistants or reinforcers would be more likely to experience lower anxiety but higher trauma, whereas the outsiders or the defenders of victims would be more likely to experience higher anxiety but lower trauma.

Trauma in this study was investigated as a contributing factor to bystander reactions, but most studies examined trauma as psychological consequences after experiencing traumatic events. For example, two studies (Janson & Hazler, 2004; Janson, Hazler, Carney, & Oh, in press) examined trauma level of bystanders who witnessed repetitive abuse including bullying and found that bystanders experience of witnessing repetitive abuse results in equivalent levels of trauma to those who experienced

catastrophic traumatic events. The mean score (14.58) of the bystanders trauma in the current study indicates that they experienced medium levels (8.6 to 19.0) of psychological stress in general (Horowitz, 1982). Results also revealed that 31% of the bystanders experienced medium levels of trauma and 28% of them experienced high levels of trauma based on Horowitz's thresholds. Six percent of bystanders also had IES scores above 35 which has been used to indicate clinically significant levels of posttraumatic stress (Mynard, Joseph, & Alexander, 2000). Thus, this study suggests that bystanders experience significant levels of psychological stress while witnessing bullying and their trauma level also significantly predicted their behavioral reactions.

It has to be noted that trauma was not significantly related to bystander behavior in correlation analysis, but it was a significant predictor in regression. This contradicting result is explained by the suppression effect of state anxiety. Conger (1974) referred to an independent variable as a suppressor variable when it "increases the predictive validity of another variable by its inclusion in a regression equation" (Conger, 1974, p 36).

According to the suppression effect, there is some aspect of the trauma measure that is not correlated with bystander behavior, but is correlated with state anxiety. The inclusion of state anxiety in the regression suppresses the error and changes trauma as a significant predictor of bystander behavior.

Research Question Two

Research question two sought to identify the direct and indirect effects of bystander personal, situational, and psychological variables on their behavioral reactions. Mediating analysis included a four-step procedure (Barron & Kenny, 1986) and only state

anxiety satisfied all criteria of a mediating effect. Figure 5.1 illustrates the mediating effect of state anxiety.

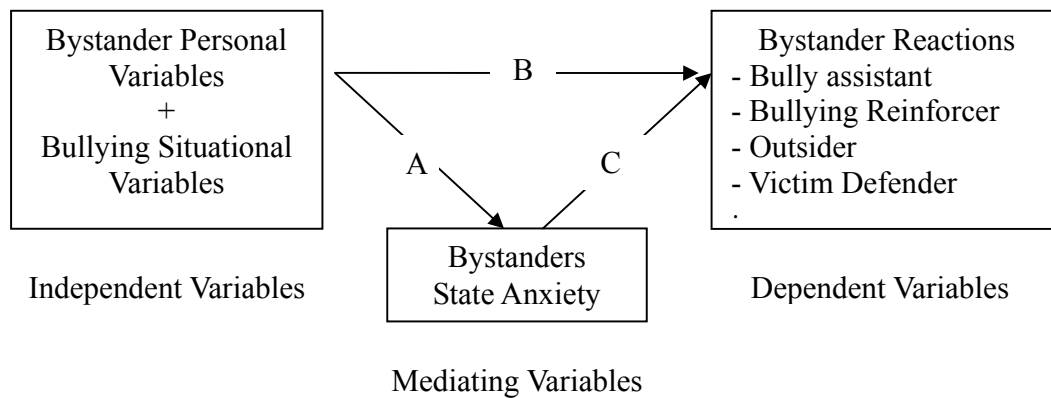


Figure 5.1 State Anxiety Mediation Model

Mediation analysis. A series of analyses were conducted to identify mediating effects. The first step showed that bystander personal and situational variables significantly predicted (arrow A) state anxiety ($R^2 = .199$, Adjusted $R^2 = .148$, $p < .0005$). In particular, gender was found to be a strong predictor of state anxiety ($\beta = .292$, $p < .0005$). The second step identified that bystanders personal and situational variables significantly predicted (arrow B) their behavioral reactions ($R^2 = .348$, Adjusted $R^2 = .304$, $p < .0005$). Specifically, bystander gender, past experience as bully-victims, type of bullying witnessed, presence of others, and closeness to bullies and victims were found to be significant predictors. It demonstrates the direct effects of the independent variables on the dependent variables. The third step investigated whether state anxiety with personal and situational variables predicted the bystander reactions. Hierarchical regression showed that state anxiety while controlling independent variables significantly predicted the dependent variables (arrow C, $\beta = .114$, $p = .039$). The last step revealed that the

effects of several independent variables (e.g. bystander gender, race, past experience as bully or victim, degree of bullying, presence of others, and closeness to bullies and victims) on the dependent variable were reduced when state anxiety was added to the equation.

It is hard to say that state anxiety functioned as a mediator between the independent variables and the dependent variables, because only some of the variables demonstrated diminished effects when state anxiety was added and the decreased amount is substantially small. In order to verify the mediation effect, the effects of direct and indirect were compared. For example, direct effect ($\beta = .204$) of gender on bystander behavior was much stronger than indirect effect ($\beta = .033$) of gender on bystander behavior through state anxiety. Indirect effects are calculated by multiplying one path coefficient (standardized beta) times another (e.g., $.033 = .292 \times .114$). Gender was the strongest predictor, but its indirect is much smaller than direct effect. Moreover, the effects of some independent variables on dependent variables (e.g., grade, popularity, frequency, past experience as a bully-victim, and bullying types) were increased when state anxiety was added to the equation. As a result, mediation by state anxiety was very slight and indirect effects were very weak.

Several mediators have been recently investigated in bullying research. Christie-Mizell (2003) found that child's self concept mediated the effects of inter-parental discord on bullying behavior. Anger and contact with delinquent friends were found to mediate between exposure to media violence and bullying behavior in school (Lee & Kim, 2004). Smith (2005) identified that perceived school context mediated between student

adjustment and levels of victimization. Gender was also identified as mediating between emotional childhood maltreatment and bullying behavior (Smith, 2006). The current study extended this line of research by identifying state anxiety as a significant mediator.

Anxiety has been investigated as a mediating factor in psychology, but most studies examined anxiety as a mediating factor to psychopathological symptoms, not to behavioral reactions. For example, mediating effects of anxiety between vehicle accident and post-traumatic stress symptoms (Gudmundsdottir, Beck, Coffey, Miller, & Palyo, 2004), between exposure to parental dyscontrol and anxiety disorders (Margo & Stewart, 2003), and between parental drinking problems and anxiety disorders (MacPherson, Stewart, & McWilliams, 2001) were found. Few studies, however, were conducted to identify anxiety as a mediating factor to behavioral reactions. This study broke new ground by exploring anxiety as a mediating factor to bystander reactions to bullying.

Implications for Practice and Research

School bullying has been identified as increasing in prevalence (Batsche & Knoff, 1994; Espelage & Swearer, 2003) and there exists considerable evidence that bullying can result in long-term and immediate negative psychological problems (Smith & Sharp, 1994). Considering the fact that bystanders are usually the majority in bullying situations and their roles may range from assisting bullies to defending victims, it is important to investigate contributing factors to bystander reactions. Bystanders have the potential to change power dynamics in bullying, and therefore may be able to decrease school bullying. Identification of significant personal, situational, and psychological factors contributing to bystander behaviors suggests a variety of implications for practice and

research. Specific implications for school counselors are suggested as well.

Effects of gender. Female bystanders were found to show more positive reactions than male bystanders. Past research consistently revealed that female bystanders chose more positive roles in bullying (Burlison & Gilstrap, 2002; O'Connell et al., 1999; Salmivalli et al., 1996) and more constructive and assertive strategies of intervention (Camodeca & Goossens, 2005; Cowie, 2000). The current study identified that gender was significantly correlated with empathy and state anxiety, which were significantly correlated to bystander behavior. It will be, therefore, important for counselors to explore how male and female students experience bullying differently in terms of their empathy and anxiety reactions.

Male students may have less empathic understanding and less emotional arousal than female students when witnessing bullying. Male students' lower empathy reactions seem to decrease their positive involvement in bullying according to the results of the current study. A school counselor can design a classroom guidance activity in order to address different reactions to witnessing bullying between male and female students. This activity would help male students recognize more empathic responses of female bystanders, therefore a school counselor can help male students increase empathic responses by exploring female students' different levels of empathy.

Intervention for bystanders. Bystanders who were bullies or bully-victims showed more problematic reactions to bullying, while bystanders who were victims showed more productive reactions. Those who had been bullies in the past consistently demonstrated aggressive behaviors by assisting bullies or reinforcing bullying even as

bystanders. It appears as though bystanders who have been bullies, still demonstrate aggression indirectly by assisting bullies or reinforcing bullying as bystanders. Bullies may experience satisfaction vicariously through assisting or reinforcing bullying, and this vicarious satisfaction may function as a reinforcer of their consistent aggressive behaviors. Many school bullying intervention programs provide a variety of positive bystander strategies in order to decrease bullying behaviors, but the current study suggests that effective interventions should include ideas for decreasing bystanders negative reactions as well.

This idea can be practically implemented within the American School Counselors Association (ASCA) National Model (ASCA, 2003). The National Model suggests National Standards which was established to help school counselors facilitate student development. The Standards identify and prioritize specific attitudes, knowledge, and skills that students should be able to demonstrate. For example, indicators at the domain of personal/social development stipulate specific skills: differentiate situations requiring peer support, identify resource people in the school and how to seek their help, and apply effective problem-solving and decision-making skills to make safe and healthy choices. A school counselor can construct a counseling program utilizing these goals to increase bystander positive reactions. Effective bullying prevention/intervention programs could integrate the ASCA model standards through a variety of topics such as (a) how to recognize bullying situations that require peer help, (b) how to seek help from resource people, (c) how to defend and support victims effectively in bullying situations, and (d) how to decrease bullying by creating safe environments. This program would be unique

in terms of enhancing bystanders awareness of bullying and facilitating their behavioral action while witnessing bullying, thereby changing peer dynamics around bullying.

Bullying types. Bystanders who witnessed one or two types of bullying were more likely to show positive reactions compared to those who witnessed all three types bullying behavior in one event. The result demonstrated that the more complicated bullying is, the less likely bystanders would defend victims. It implies that bystanders showed differentiated involvement in terms of complicatedness of bullying. The different reaction to different bullying types may be related to concerns about consequences of reactions such as the fear of getting attacked or becoming a new target of bullying. It may be more difficult to react to multiple bullying, because multiple bullying has not only direct and visible threatening (e.g., physical or verbal bullying) elements but also has indirect and invisible threatening components (e.g., social bullying). The current study found that the bystanders involvement was different in terms of how complicated the bullying was, but it did not identify whether bystanders reacted differently to different types of bullying. Therefore, it will be worthwhile to investigate if bystanders react more positively to physical bullying than to social bullying or vice versa.

It will be important for a school counselor to explore how students feel differently while witnessing a single type of bullying versus bullying that includes two or more types. Identifying the difference could point to which factors are hindering their involvement. Identification of bystander specific reservations about behavioral reactions will give clues to increasing their active involvement. It will also be important for a school counselor to explore how students cope differently when they witness different

types of school bullying. Identification of differentiated effective strategies based on bullying type will increase students coping skills as bystanders.

Bystander effect. Presence of other bystanders in this study significantly predicted more positive reactions. The fact that bystanders would assist bullies or reinforce bullying more when no one was present implies that there may be bystander concern about how others may be evaluating them negatively. Bystanders positive reactions could be increased if the number of adult bystanders is increased. When other bystanders behavior were examined, 76% of the adult bystanders defended victims but only 5% of student bystanders defended victims.

Most bullying (97%) in the study happened when multiple bystanders were present. The majority of bystanders (over 78%) were students and most students showed negative reactions. The fact that bystanders usually outnumber bullies or victims suggests that bystanders have significant potential to change situations by transforming dynamics. Counselors and educators must help these majority bystanders choose more positive roles around supporting victims. A school counselor can utilize the ASCA National Standards in order to facilitate bystander positive roles. For example, indicators in the domain of personal/social development specify the following skills: understand consequences of decisions, identify alternative solutions to a problem, develop effective coping skills, and demonstrate when, where, and how to seek help for solving problems (ASCA, 2003). A school counselor can implement a variety of classroom guidance activities designed to help bystanders choose positive roles by focusing on these indicators.

Psychological state. Only state anxiety, not trait anxiety, was found to be a

significant mediator of bystander reactions in this study. State anxiety reflects bystanders subjective reactions during bullying situations such as physiological arousal, symptoms of apprehension, worry and tension. Unlike trait anxiety, which refers to bystanders personality disposition, state anxiety refers to their transitory reactions of emotions based on bullying situations. The results imply that bystanders subjective emotional reactions characterized by high levels of anxiety mediate their behavior, but their anxiety based on personality dimensions of genetic foundation does not.

Bystanders trauma was assessed by asking what symptoms they experienced during the period when the bullying event occurred, so trauma represents bystanders psychological state when witnessing a certain bullying situation. It should be noted that dispositional psychological variables (e.g., trait anxiety) were found not to predict bystander reactions, but reactive psychological variables (state anxiety and trauma) were found to significantly predict bystander reactions. It seems that how bystanders experience and react to bullying situations is more important than how they normally perceive and feel in non-threatening situations. This finding highlights the potential significance of facilitating bystanders reactions by reframing their subjective emotional reactions.

Limitations

This study has generalization limitations, because random sampling was not used to identify participants. A power analysis confirmed that the sample size was appropriate to test the hypotheses, but non-random sampling limits the generalization of the findings. Participants were recruited at one state university and ethnic diversity was limited, so the

majority of the participants were Caucasian (93%) and only small number of minority students (7%) was involved in this study. In particular, undergraduate students of College of Education were recruited, so a limited number of male students participated (11%).

Self-report instruments are frequently used in school bullying research, but they may lead to a response bias because participants can consciously or unconsciously respond in a way that satisfies the researcher's hypotheses. The result of the Marlowe-Crowne Social Desirability Scale (Form C) revealed that the bystanders socially desirable responding was significantly and positively related with the dependent variable. It implies that the participants may, to some degree, tailor their answers to create a positive image. This tendency can misrepresent bystanders actual reactions even though the effect of social desirability in this study was controlled by being entered at the first step in the hierarchical regression.

Participants were asked to recall one particular bullying episode and then they completed the trauma and state-anxiety scales based on the recalled event. Latent limitations of retrospective studies may influence the accuracy of their reactions. Non-traditional students who were older than 22 years old were excluded from the analyses in order to minimize the retrospective period. Reliability analysis was conducted in order to test the reliability of the current state anxiety scale in which all verbs were rephrased as a past tense. The analysis revealed the internal consistency (Cronbach's Alpha) of current scale was .92 which is higher than the average internal consistency coefficients on the state anxiety scale. Barnes, Harp, and Jung (2002) conducted a reliability generalization study by comparing a total of 816 research articles utilizing the State Trait Anxiety Scale.

117 reliability coefficients were obtained from the articles and they found that the mean of the internal consistency coefficients was .91. The reliability of the current study was established indirectly by showing the study's coefficient was acceptable.

Current empathy and trait-anxiety of the participants were measured and they were used for predicting the dependent variable. Direct comparison between the participants' retrospective behavioral reactions and current psychological trait has limitations, because normal developmental changes in participants occur between the retrospective and current point (Heppner, Kivlighan, & Wampold, 1999). There was, however, empirical evidence showing that empathy (Eisenberg et al., 1995) and trait anxiety (Bosquet & Egeland, 2006; Carmel & Bernstein, 1989; Lau, Eley, & Stevenson, 2006) would not change significantly throughout adolescence.

Recommendations for Future Research

Bystanders behavioral reaction was measured by a self-report method and it was found to be significantly correlated with their social desirability. Socially desirable responding was controlled in the analyses by entering this variable at the first step of hierarchical regression. Another way for diminishing the influence of participant's socially desirable responding is to use alternative assessments. For example, the method of observations, peer assessment measures, and teacher ratings would be less influenced by the social desirability of participants. Observational methods can provide unbiased analyses of participants' behavior in bullying situations and such methods are objective when definitions are clearly articulated and inter-rater reliability is established (Crothers & Levinson, 2004). Research has suggested that peer assessment has shown satisfactory

reliability estimates because students are adept at identifying bullying related behaviors in school (Pakaslahti & Keltikangas-Javinen, 2000). Olweus (1993) has suggested confidence in the accuracy of teacher ratings, even though it may underestimate the amount of bullying because many bullying events occur in the absence of teachers. Therefore, it is recommended to use additional alternative methods in order to minimize the influence of participants' social desirability.

No causal inferences can be drawn from the analyses of this study. A future study may explore the causal relationships among psychological variables and the dependent variable by using advanced statistical analyses such as a Structural Equation Modeling. This method will show clearer and more comprehensive understanding of how psychological variables function in the determination of bystanders behaviors.

Psychology has been criticized for focusing too much on the negative effects of psychological problems (Seligman, 1994), even though significant strides have been made in understanding and treating psychological disorders. An emerging trend is to focus on strengths as well as weaknesses (positive psychology). It will be worthwhile to study strengths and virtues that enable bystanders to defend victims from the positive perspective. Based on this trend, future studies may utilize more positive psychological variables such as courage, resilience, hope, optimism, and self-control.

Research indicates that bullying can occur as an interaction between the student and the contexts or systems where the student is a part (Song & Swearer 2002). The school environment can play a significant role in promoting and perpetuating bullying behaviors. Olweus (1999) found that the risk of being victimized in some schools is four

or five times higher than it is in other schools. Mackelm (2003) claims that school culture and climate have an influence on school bullying. School culture and climate refer to invisible expectations that develop over time in school and all aspects of school environment are included. For example, policies of discipline, resources, communication quality, support services, morale, and so on. Future studies may use cultural or environmental variables to explore how these variables contribute to predicting bystanders behaviors.

Conclusions

School bullying is a problem which is receiving more attention because of increasing prevalence and its negative psychological impact. Numerous studies have been conducted and most of them have focused on the bullies and victims, while bystanders have received relatively less attention. The current study adds to this body of work by investigating bystanders who are the majority in bullying situations, and therefore have the potential to change power dynamics. This study's exploration of a variety of contributing factors (e.g., personal, situational, and psychological) to bystander behavior begins the creation of a more comprehensive framework. A relatively new and advanced categorical regression makes the current study more robust in exploring relationship among traditionally ordinal variables, because the categorical regression utilizes an optimal scaling procedure which optimally rescales each independent and dependent variable taking into account all independent variables, thereby maximizing the effects of all independent variables.

The current study found that bystanders personal, situational, and psychological variables contributed to predicting their behaviors. Most of the findings in the study support other professional literature that examined the influence of personal, situational, and psychological variables on their aggressive and helping behavior. The findings in the current study enhanced the understanding of bystanders behavior by providing valuable information on contributing factors to their reactions. Implications of the current findings suggest that it is critical for counselors and educators to pay more attention to bystanders. Through the enhanced understanding of bystanders, the findings of the current study should provide foundations for more effective counseling, intervention and prevention of school bullying.

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APPENDIX A

Informed Consent Form

Title of Project: Bystander behavioral and psychological reactions to school bullying

Person in Charge:

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Purpose of Study:

The purpose of this study is to identify bystanders personal, situational, and psychological factors contributing to their behaviors in school bullying.

Nature of Involvement:

All students who agree to participate will be given five questionnaires to answer which will take approximately 25 minutes to complete. Simply fill out the surveys, put the completed surveys in the envelope and return the envelope without any names attached.

Rights as a research participant:

Any questions you may have about the research procedures will be answered by contacting Insoo Oh or Richard Hazler.

Your participation in this research is completely voluntary. You are free to decline to answer any specific questions. You must be 18 years of age or older to participate. Your confidentiality as a participant in this research is assured through the strictly anonymous nature of your responses. No identifying information will be attached to your questionnaire. Only group data will be analyzed, your individual responses will not be evaluated. All anonymous questionnaires will be stored in locked drawers in the investigator's offices until the research has been completed, at which time they will be destroyed so no permanent record of your individual responses will exist.

Granting Informed Consent: I agree to participate in this scientific investigation as an authorized part of the research program at Penn State University.

Completion and return of the survey is considered consent to participate in this research.

Please keep this document for your records and future reference.

APPENDIX B
Demographic Questionnaire

DO NOT PUT YOUR NAME ON THIS SURVEY. No one will know how you answered these questions, but it is important that you answer carefully and tell how you really think. Sometimes it is hard to decide what to answer. Just give the first answer that you think of. This survey is voluntary, so you may stop at any time you want if you do not like the survey.

- ▶ I am currently _____ years old.
- ▶ I am Male, Female.
- ▶ Which best describes you?
 - African-American American-Indian Asian-Pacific Islander
 - Latino/a Caucasian/White Other(Please tell what)_____

APPENDIX C

Interpersonal Reactivity Index: Empathy Scale (Davis, 1980)

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, **indicate how well it describes you by choosing the appropriate letter** on the scale at the following: A, B, C, D, or E. When you have decided on your answer, fill in the letter next to the item number. Read each item carefully before responding and answer as honestly as you can.

ANSWER SCALE:

A -----B-----C-----D-----E
Does not **Describes me**
Describe me well **Very well**

- ___ 1. I daydream and fantasize, with some regularity, about things that might happen to me.
- ___ 2. I often have tender, concerned feelings for people less fortunate than me.
- ___ 3. I sometimes find it difficult to see things from the "other guy's" point of view.
- ___ 4. Sometimes I don't feel very sorry for other people when they are having problems.
- ___ 5. I really get involved with the feelings of the characters in a novel.
- ___ 6. In emergency situations, I feel apprehensive and ill-at-ease.
- ___ 7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.
- ___ 8. I try to look at everybody's side of a disagreement before I make a decision.
- ___ 9. When I see someone being taken advantage of, I feel kind of protective towards them.
- ___ 10. I sometimes feel helpless when I am in the middle of a very emotional situation.
- ___ 11. I sometimes try to understand my friends better by imagining how things look from their perspective.

A -----B-----C-----D-----E

Does not **Describes me**
Describe me well **Very well**

- ___ 12. Becoming extremely involved in a good book or movie is somewhat rare for me.
- ___ 13. When I see someone get hurt, I tend to remain calm.
- ___ 14. Other people's misfortunes do not usually disturb me a great deal.
- ___ 15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
- ___ 16. After seeing a play or movie, I have felt as though I were one of the characters.
- ___ 17. Being in a tense emotional situation scares me.
- ___ 18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
- ___ 19. I am usually pretty effective in dealing with emergencies.
- ___ 20. I am often quite touched by things that I see happen.
- ___ 21. I believe that there are two sides to every question and try to look at them both.
- ___ 22. I would describe myself as a pretty soft-hearted person.
- ___ 23. When I watch a good movie, I can very easily put myself in the place of a leading character.
- ___ 24. I tend to lose control during emergencies.
- ___ 25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.
- ___ 26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.
- ___ 27. When I see someone who badly needs help in an emergency, I go to pieces.
- ___ 28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

APPENDIX D

**Trait Anxiety Scale
(Spielberger, 1983)**

Instructions:

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate response **to indicate how you “generally” feel.**

	Questions	Response			
		Almost Never	Sometimes	Often	Almost Always
1	I feel pleasant-----	1	2	3	4
2	I feel nervous and restless -----	1	2	3	4
3	I feel satisfied with myself-----	1	2	3	4
4	I wish I could be as happy as others seem to be-----	1	2	3	4
5	I feel like a failure-----	1	2	3	4
6	I feel rested -----	1	2	3	4
7	I am “calm, cool, and collected” -----	1	2	3	4
8	I feel that difficulties are piling up so that I cannot overcome them -----	1	2	3	4
9	I worry too much over something that really doesn’t matter -----	1	2	3	4
10	I am happy -----	1	2	3	4
11	I have disturbing thoughts -----	1	2	3	4
12	I lack self-confidence -----	1	2	3	4
13	I feel secure -----	1	2	3	4
14	I make decisions easily -----	1	2	3	4
15	I feel inadequate -----	1	2	3	4
16	I feel content -----	1	2	3	4
17	Some important thought runs through my mind and bothers me -----	1	2	3	4
18	I take disappointments so easily that I can’t put them out of my mind -----	1	2	3	4
19	I am a steady person -----	1	2	3	4
20	I get in a state of tension or turmoil as I think over my recent concerns and interests	1	2	3	4

APPENDIX E

Marlowe-Crowne Social Desirability Scale Form C (Crowne & Marlowe, 1960)

Instructions:

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide **whether the statement is true or false as it pertains to you personally.**

- 1 It is sometimes hard for me to go on with my work if I am not encouraged. True False
- 2 I sometimes feel resentful when I don't get my way. True False
- 3 On a few occasions, I have given up doing something because I thought too little of my ability. True False
- 4 There have been times when I felt like rebelling against people in authority even though I knew they were right. True False
- 5 No matter who I'm talking to, I'm always a good listener. True False
- 6 There have been occasions when I took advantage of someone. True False
- 7 I'm always willing to admit it when I make a mistake. True False
- 8 I sometimes try to get even rather than forgive and forget. True False
- 9 I am always courteous, even to people who are disagreeable. True False
- 10 I have never been irked when people expressed ideas very different from my own. True False
- 11 There have been times when I was quite jealous of the good fortune of others. True False
- 12 I am sometimes irritated by people who ask favors of me. True False
- 13 I have never deliberately said something that hurt someone's feelings. True False

APPENDIX F

School Bullying Bystander Survey



School Bullying Bystander Survey

INSTRUCTIONS I: What is Bullying?

In this survey you will be asked questions about your experience with bullying. By the word “bullying” we mean:

- (1) **Repeated (not just once) harm** to others by hurting others’ feelings through words, rejection by other kids, or by attacking and physically hurting others;
- (2) It may be done by **one person** or by a **group**
- (3) It happens on the **school grounds** or on the **way to and from school**; and
- (4) It is an **unfair match** (the person doing the bullying is physically stronger or better with words or better at making friends than the person).

1. How often were you bullied in middle school or high school?

- Not bullied Bullied some Bullied a lot

2. How often did you bully others in middle school or high school?

- Never bullied anyone Sometimes bullied others Bullied others a lot

3. How often did you see other students being bullied in middle or high school?

- I ***did not*** see others being bullied at school.
- I ***scarcely*** saw bullying at school. (a couple of bullying a year)
- I ***sometimes*** saw bullying at school. (a couple of bullying a month)
- I ***many times*** saw bullying at school. (a couple of bullying a week)
- I ***almost everyday*** saw bullying at school.

INSTRUCTIONS II:

Please recall **ONE** particular event where you witnessed someone being bullied during middle school or high school. Describe the situation briefly in this box under the following headings and please don't put any names or identifying information in the description:

Who:

When:

Where:

How:

4. What types of bullying did you describe in the box?

- Physical (hitting, kicking, pushing, taking someone's belongings, etc)
- Verbal (name calling, swearing, threatening, making others stop talking, etc)
- Social (spreading rumor, rejecting someone, telling secret to manipulate relationships, etc)
- Others: (Please tell what) _____

5. What did you do when you witnessed the bullying event described in the box?

(Check the one that is the closest)

- I joined in the bullying when the bully(ies) had started it.
- I assisted the bullying by doing something for the bully(ies).
- I giggled, laughed, shouting, or similar reactions.
- I kept looking at the bullying and enjoying the situation.
- Nothing, I pretended not to notice what was happening.
- Nothing, I went away from the situation.
- I tried to help in some way but was not successful.
How did you help? _____
- I tried to help in some way and was successful.
How did you help? _____
- Other: _____

6. What do you think is the best thing **you should have done** in the bullying event described in the box? (**Check the one that is the closest**)

- I should have hit or pushed the bully back.
- I should have threatened or sworn at the bully.
- I should have spread rumors, told secrets, or gotten the bully rejected by others afterwards.
- I should have stayed away from the situation.
- I should have pretended not to notice what was happening.
- I should have told the bully to stop it.
- I should have asked the bully why s/he was doing?
- I should have reported someone else such as teachers.
- Other: _____

7. How severe was the bullying?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	4	3	2	1
Very severe			Not at all	

8. For 8a to 8e, check the box that best describes **the victim**:

- a. Male or Female
- b. African-American American-Indian Asian-Pacific Islander
 Latino/a Caucasian/White Other(Please tell what) _____
- c. In Grade 6 7 8 9 10 11 12
- d. Very popular
 More popular than most
 Less popular than most
 Very unpopular
- e. My close friend(s)
 Just friend(s) that I knew
 Not friend but person(s) that I knew
 Person(s) that I didn't know

9. For 9a to 9e, check the box that best describes **the bully**:

- a. Male or Female
- b. African-American American-Indian Asian-Pacific Islander
 Latino/a Caucasian/White Other(Please tell what) _____
- c. In Grade 6 7 8 9 10 11 12

- d. Very popular
More popular than most
Less popular than most
Very unpopular
- e. My close friend(s)
Just friend(s) that I knew
Not friend but person(s) that I knew
Person(s) that I didn't know
10. When I witnessed this bullying, I was:
- a. in Grade 6 7 8 9 10 11 12
- b. Very popular
More popular than most
Less popular than most
Very unpopular
11. Who else witnessed the bullying situations except you?
- Adult(s) (teacher(s), supervisor(s), parent(s), and etc)
What did they do? _____
- Student(s)
What did they do? _____
- No one except me.

APPENDIX G

Impact of Event Scale

(Horowitz, Wilner, & Alvarez, 1979)

Instructions:

Please recall the bullying event you described on page 6. Below is a list of comments made by people after stressful life events. **Think about the bullying event you described and indicate how you felt during the “period” when the bullying event occurred.** Read following each statement and then make a circle the appropriate response.

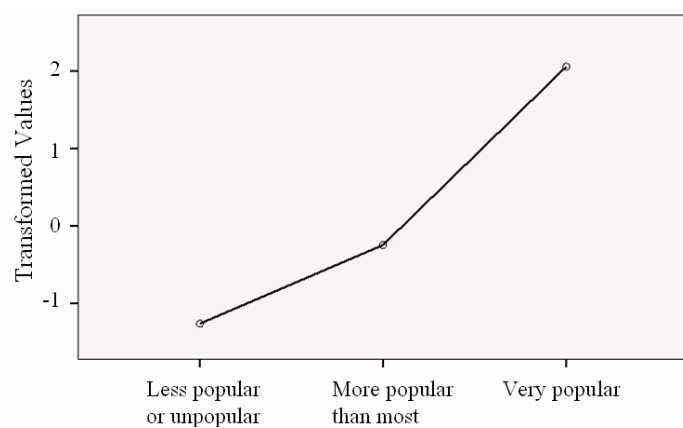
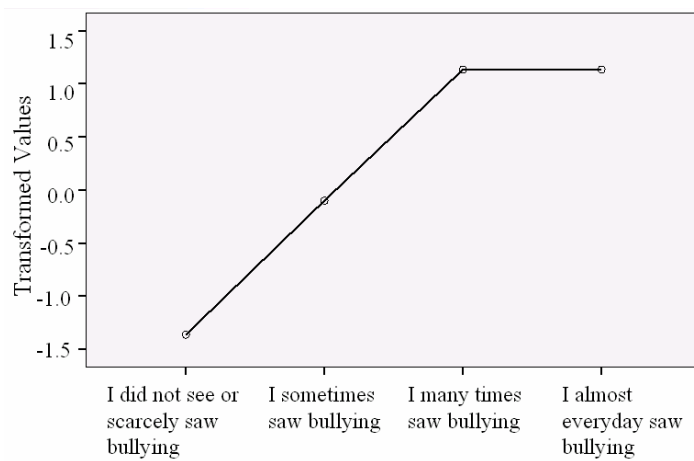
Questions	Response			
	Not at all	Rarely	Sometimes	Often
1 I thought about it when I didn't mean to. -----	0	1	3	5
2 I avoided letting myself get upset when I thought about it or was reminded about it.-----	0	1	3	5
3 I tried to remove it from memory. -----	0	1	3	5
4 I had trouble falling asleep or staying asleep because of pictures or thoughts about it that came to my mind.-----	0	1	3	5
5 I had waves of strong feelings about it.-----	0	1	3	5
6 I had dreams about it. -----	0	1	3	5
7 I stayed away from reminders about it. -----	0	1	3	5
8 I felt as if it hadn't happen or was unreal.-----	0	1	3	5
9 I tried not to talk about it.-----	0	1	3	5
10 Pictures about it popped into my mind.-----	0	1	3	5
11 Other things kept making me think about it. --	0	1	3	5
12 I was aware that I still had a lot of feelings about it, but I didn't deal with them.-----	0	1	3	5
13 I tried not to think about it.-----	0	1	3	5
14 Any reminder brought back feelings about it. -	0	1	3	5
15 My feelings about it were kind of numb.-----	0	1	3	5

APPENDIX H

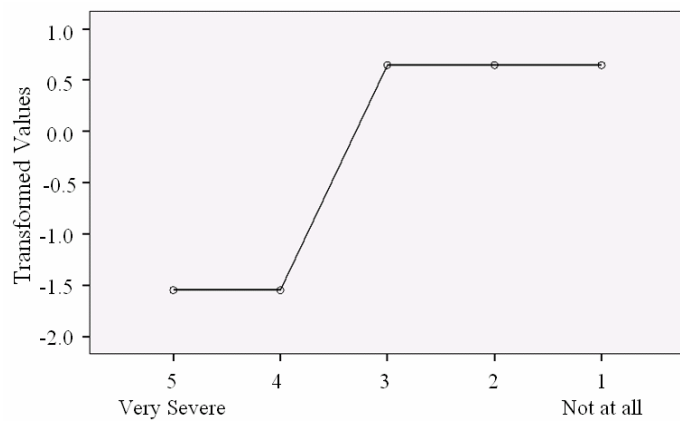
State Anxiety Scale
(Spielberger, 1983)**Instructions:**

Please recall the bullying event you described on page 6. Below is a list of comments that people has used to describe themselves. **Think about the bullying event you described and indicate how you felt at the “moment” when you witnessed the bullying event.** Read following each statement and then make a circle the appropriate response.

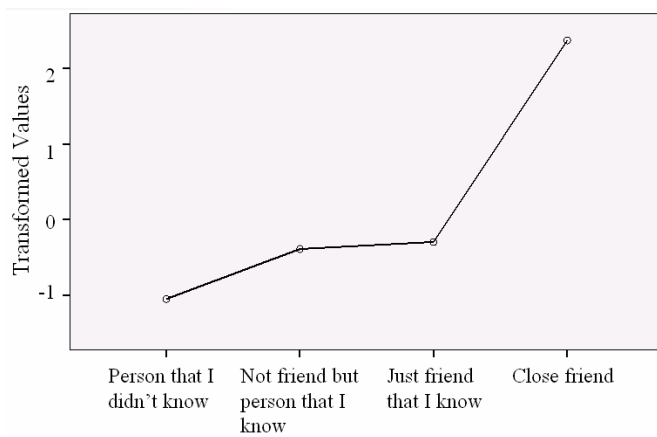
Questions		Response			
		Not at all	Somewhat	Moderately So	Very Much So
1	I felt calm -----	1	2	3	4
2	I felt secure -----	1	2	3	4
3	I was tense -----	1	2	3	4
4	I felt strained -----	1	2	3	4
5	I felt at ease -----	1	2	3	4
6	I felt upset -----	1	2	3	4
7	I was worrying over possible misfortunes -----	1	2	3	4
8	I felt satisfied -----	1	2	3	4
9	I felt frightened -----	1	2	3	4
10	I felt comfortable -----	1	2	3	4
11	I felt self-confident -----	1	2	3	4
12	I felt nervous -----	1	2	3	4
13	I was jittery -----	1	2	3	4
14	I felt indecisive -----	1	2	3	4
15	I felt relaxed -----	1	2	3	4
16	I felt content -----	1	2	3	4
17	I was worried -----	1	2	3	4
18	I felt confused -----	1	2	3	4
19	I felt steady -----	1	2	3	4
20	I felt pleasant -----	1	2	3	4

APPENDIX I**Transformation Plots****1. Popularity****2. Frequency of Witnessing**

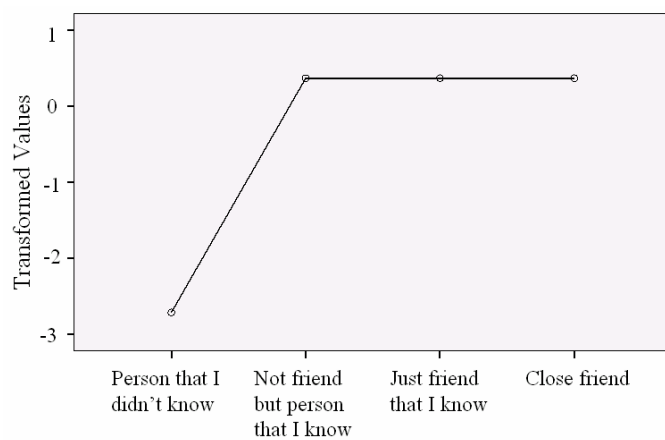
3. Degree of Bullying



4. Closeness to Bully



5. Closeness to Victim



VITA

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EDUCATION

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Teaching		
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PRESENTATIONS

Oh, I. (2007) *Comprehensive understanding of international students' counseling issues*. American Counseling Association Convention Detroit, MI.

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Oh, I. (2006) *Bystanders experiences and roles in school bullying*. Pennsylvania Counseling Association Conference, State College, PA.

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PUBLICATIONS

Janson, G. R., Hazler, R. J., Carney, J. V., & Oh, I. (in press). Bystanders' reactions to witnessing repetitive experiences. *Journal of Counseling and Development*.