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The Influence Of Individual And Perceived Organizational Characterisitics On Teacher Interventions In Bullying Situations

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THE INFLUENCE OF INDIVIDUAL AND PERCEIVED ORGANIZATIONAL CHARACTERISTICS ON TEACHER INTERVENTIONS IN BULLYING SITUATIONS

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DEDICATION

I dedicate my dissertation to my family. I am truly grateful for the love and support of my parents, Keith and Ann VanZoeren, and my sisters, Mary and Rachel. Your continued prayers and words of encouragement throughout my doctorate program have been invaluable. I also dedicate my work to my nieces as they have taught me to approach life's challenges with hope, determination, and courage.

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CHAPTER 1

INTRODUCTION

The problem of bullying among schoolchildren has gained increasing attention in the United States over the past several years. Tragic events, such as Columbine and student suicides, have brought to light the serious consequences of bullying and focused public attention on the impact bullying can have on individual well-being and social functioning. Although bullying among children is not a new phenomenon, it was historically given little attention and often thought to be a normal part of social development. A broader understanding of bullying originated with the work of Dan Olweus in the 1970s (Olweus, 1972; Olweus, 1977; Olweus, 1978). His research provided both a foundation for examining the consequences of bullying and a framework for developing programs and policies to address the problem. The research on bullying among school children in the United States not only reveals that it is quite prevalent but also confirms that bullying has serious consequences for victims, bullies, and the overall climate of schools (Jimerson, Swearer, & Espelage, 2010; Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001; Nansel, Overpeck, Haynie, Ruan, & Scheidt, 2003; Whitted & Dupper, 2005). Policymakers and educators are thus responding to the problem of bullying with legislative and programming efforts designed to address and reduce bullying behaviors within the school setting.

Anti-bullying Laws and Policies

According to the National Conference of State Legislatures, "a safe and civil environment in school is necessary for students to learn and achieve high academic standards. Bullying, like other disruptive behaviors, is conduct that disrupts both a student's ability to learn and a school's

ability to educate its students in a safe, non threatening environment" (National Conference of State Legislatures, 2008). A search of the Educational Bill Tracking database (www.ncsl.org) reveals that forty-nine states have enacted legislation designed to reduce or prevent bullying and/or harassment. While some variation exists among state laws and policies, the majority of legislation is focused on the definition, reporting requirements, and legal issues surrounding bullying with little attention given to prevention and intervention efforts (Limber & Small, 2003). Although several states encourage the implementation of prevention and/or intervention programs, few mandate such measures despite an increasing number of studies which highlight the impact of bullying on academic, social, and emotional outcomes (Boulton, Smith, & Cowie, 2010; Juvonen, Wang, & Espinoza, 2011; Nakamoto & Schwartz, 2010; Olweus, 1993; Schwartz, Gorman, Nakamoto, & Toblin, 2005; Whitted & Dupper, 2005). In addition, most policies fail to address the potential role teachers could play in prevention and intervention efforts even though a growing body of literature supports teacher involvement in bullying situations (Bauman & Del Rio, 2006; Espelage & Swearer, 2003; Hektner & Swenson, 2012; Holt & Keyes, 2004; Kasen, Berenson, Cohen, & Johnson, 2004; Yoon & Kerber, 2003).

Anti-bullying Programs

In a meta-analytic review of school-based programs to reduce bullying, Ttofi and Farrington (2011) reviewed 44 programs and found that school-based anti-bullying programs can play an important role in reducing bullying and victimization. The review identified program components associated with decreased bullying and found that the most effective programs for reducing bullying were intensive in nature, included parent training/meetings, emphasized firm discipline, and supported improvements in playground supervision. Additional important

program elements included an emphasis on classroom management, teacher training, classroom rules, school conferences, whole-school bulling policies, and cooperative group work among staff and students alike (Ttofi & Farrington, 2011). These findings suggest that effective anti-bullying programs are not solely focused on individual student behavior but rather encompass a range of intervention and prevention strategies undertaken by numerous stakeholders, including teachers. As stated by Ttofi and Farrington (2011), anti-bullying initiatives should "bring together experts from various disciplines and make the most of their expertise. In our review, cooperative group work among experts was significantly related to the reduction of both bullying and victimization" (p. 46).

Specific Aims

While research supports policies and programs which recognize the central role teachers play in the reduction of bullying and victimization, little is known about the individual and organizational characteristics which influence the likelihood of their intervention in bullying situations. This study aims to examine the impact of individual and perceived organizational characteristics on the likelihood of teachers' intervening in bullying situations. The inclusion of teachers' perceptions of organizational variables extends the current literature, which has historically focused on the relationship between individual teacher characteristics such as attitudes, empathy, self-efficacy and the likelihood of intervention in bullying situations (Bradshaw, Sawyer, O'Brennan, 2007; Yoon, 2004). In recent years, a focus on the broader social-ecological context of bullying has led researchers to consider the influence of other contextual factors on bullying behavior. Several studies have begun to explore the relationship between bullying behavior and organizational factors, including: school climate (Lee, 2011;

Meyer-Adams & Conner, 2008; Swearer, Espelage, Vallancourt, & Hymel, 2010), levels of school violence (Benbenishty & Astor, 2005; Goldstein, Young, & Boyd, 2008), and school/class size (Blatchford, Edmonds, & Martin, 2003; Ma, 2002; Olweus, 1993; Scheithauer, Hayer, Petermann, & Jugert, 2006). Given the fact that these studies reveal a connection between organizational characteristics and bullying behavior, it seems possible that teachers' perceptions of these variables might also impact the likelihood of their intervening in bullying situations. The inclusion of variables related to anti-bullying policies and procedures in the current study also extends the literature by examining how teachers' knowledge of these policies and procedures influences their intervention decisions. Although the majority of states now have anti-bullying laws requiring local school districts to establish policies and procedures to address bullying, few studies have examined how these policies/procedures impact responses to bullying within our schools.

Research Questions

1. To what extent do teachers' beliefs about the perceived seriousness of the bullying situation influence their decision to intervene?
2. How does empathy impact the likelihood of teachers' intervening in bullying situations?
3. How do ratings of self-efficacy impact the likelihood of teachers' intervening in bullying situations?
4. How do ratings of school organizational health impact the likelihood of teachers' intervening in bullying situations?
5. To what extent does awareness of bullying education programs and bullying prevention initiatives within schools influence the likelihood of teachers' intervening in bullying

situations?

6. To what extent does knowledge of school anti-bullying policies and procedures influence the likelihood of teachers' intervening in bullying situations?
7. To what extent does participation in training opportunities on bullying influence the likelihood of teachers' intervening in bullying situations?
8. To what extent does class size influence the likelihood that teachers will intervene in bullying situations?
9. Which variables, individual-level or organizational-level, are the strongest predictors of the likelihood of teachers' intervening in bullying situations?

Connection to Social Work

There are many opportunities for social workers to intervene on multiple levels to address the problem of bullying in schools. Over the past several years there has been a great deal of attention focused on broadening the scope of school social work practice to include interventions focused on the micro, mezzo, and macro levels of practice (Allen-Meares, 1994; Franklin, 2005; Frey & Dupper, 2005; Kelly, 2008). The growing needs of students, families, and communities coupled with changing educational policies and increased accountability challenge school social workers to examine their beliefs about what constitutes effective practice in the school setting. A practice model which supports collaboration among systems creates the opportunity for teachers and social workers to work together to address multiple issues impacting students in their educational pursuits (Berzin, O'Brien, Frey, Kelly, Alvarez, & Shaffer, 2011).

There are many similarities between the professional roles and goals of teachers and social workers which naturally foster a framework of collaboration in the schools (Bronstein &

Abramson, 2003). A review of the literature by Lynn, McKay, and Atkins (2003) reveals that teachers not only play an important role in creating a positive school environment but also directly influence student's educational, social, and emotional outcomes. According to these researchers, "teachers play key roles in mediating larger school and contextual effects and are as yet underused resources" (p. 206). Although numerous studies highlight the importance and influence of the teacher-student relationship (Davis & Dupper, 2004; Murdock & Miller, 2003; Rosenfeld, Richman, & Bowen, 2000; Wentzel, 1997), teachers often do not feel prepared to address the many issues impacting students (Stuart & Thurlow, 2000). In addition, increasing policy and curricular demands often leave teachers feeling inadequately prepared for the challenges of their work (Hollins & Guzeman, 2005; McDonald, 2007; Wideen, Mayer-Smith, & Moon, 1998).

The ecological orientation of social work practice has been shown to provide a strong framework for guiding collaboration between the fields of education and social work. Utilizing an ecological perspective allows school social workers to move beyond intervention with individual students and supports a broader approach which recognizes the important role teachers play in creating a safe school environment (Novick & Isaacs, 2010). School social workers are well-positioned to not only explore what motivates teachers to intervene but also to support programs and strategies which build teacher capacity and skill. School social workers are also in a position to advocate for anti-bullying policies which support broad prevention and intervention efforts. An analysis of current state laws and policies highlights the need for social workers to continue to advocate for enhanced policies which include provisions to address the social, emotional, and mental health implications of bullying for students and the larger school

community. Viewed from an ecological perspective, problems such as bullying provide school social workers with the opportunity to work collaboratively with students, parents, teachers, administration, and the community to achieve the shared goal of creating a safe school environment.

CHAPTER 2

LITERATURE REVIEW

Bullying

Bullying has been consistently and specifically defined in the literature as aggressive behavior that is intended to cause harm or distress, occurs repeatedly over time, and exists in a relationship where there is an imbalance of power (Limber & Small, 2003; Nansel et al., 2001; Olweus, 1993). Bullying involves the unprovoked abuse (physical or psychological) of an individual by one student or a group of students and can be either direct or indirect in nature (Whitted & Dupper, 2005). Direct bullying represents openly aggressive behaviors, such as taunting, hitting, or obscene gestures whereas indirect bullying involves more subtle behaviors which lead to social isolation or exclusion such as spreading rumors, threatening, and cyber bullying (Monks & Smith, 2006). The different types of bullying behavior are typically classified as verbal bullying, physical bullying, and non-verbal/non-physical bullying (often referred to as relational or social bullying) with individuals involved in these behaviors being identified as the bully, the victim, the bully-victim, or the bystander (Limber, 2002; Olweus, 1993; Rigby, 2008).

Consequences of bullying

Bullying is associated with serious and long-term consequences for the bully, the victim, and the school community. The effects of bullying are far-reaching and impact the emotional, academic, and behavioral well-being of individuals (Olweus, 1993; Whitted & Dupper, 2005). Victims of bullying present with poorer emotional and social adjustment, including lower-self esteem, depression, anxiety, trouble making friends, trouble getting along with classmates, and

greater feelings of loneliness (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Nansel et al., 2001; Olweus, 1993; van der Wal, de Wit, & Hirasing, 2003). In fact, researchers show that bullying behaviors are associated with an increased risk of depression, serious suicidal ideation, and suicide attempts for bullies, victims, and bully-victims (Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007). The effects of bullying appear to continue into early adulthood as evidenced in a longitudinal study by Olweus (1993), which found that students who were bullied in school during grades six through nine had more negative outcomes in adulthood, such as depression and lower self-esteem, than their non-bullied peers.

Individuals who bully others also show a greater risk of social and emotional problems as evidenced by an increased risk of depression and problem behaviors, including poor grades, increased substance use, and increased levels of violence (Klomek et al., 2007; Nansel et al., 2001; Vossekuil, Reddy, Fein, Borum, & Modzeleski, 2002). A study by the U.S. Secret Service and the U.S. Department of Education revealed a link between severe and repeated bullying and serious acts of violence. The authors found that most of the perpetrators in their study felt bullied, threatened, and/or harassed prior to their violent act (Vossekuil et al., 2002). In a study on the relationship between bullying and violence among US youth, researchers also found a strong relationship between bullying and involvement in violent behaviors, such as weapon carrying, frequent fighting, and fighting-related injury (Nansel et al., 2003). These negative effects also appear to have long term consequences as evidenced in a study by Olweus (1991) which found that 60 percent of boys identified as a bully in grades six through nine had at least one criminal conviction by age 24.

Bullying behavior can also influence a number of school problems, including truancy,

poor grades, and school dropout (Limber, 2002; Whitted & Dupper, 2005). In fact, an overview of school bullying by the National Conference of State Legislatures (2008) estimates that approximately 160,000 students stay home from school every day because of a fear of being bullied.

Prevalence of bullying

Until recently, data on the prevalence of bullying in the United States has been somewhat limited, as the majority of research had been conducted in Europe, Australia and Canada. However, recent studies have examined the prevalence of bullying in the United States. In 1998, the National Institute of Child Health and Human Development (NICHHD) conducted a survey of 15,686 students in grades six through ten. The survey revealed that nearly 30% of students reported moderate or frequent involvement in bullying, either as a bully (13.0%), as the one who was bullied (10.6%), or as both (6.3%) (Nansel et al., 2001). The survey also found that 16% of boys and 11% of girls reported being bullied in school either sometimes or weekly and that 23% of boys and 11% of girls reported moderate or frequent bullying of others (Nansel et al., 2003). In 2002, the Families and Work Institute also released a report on youth and violence which examined the prevalence of bullying. A nationally representative sample of 1,000 students in grades 5-12 revealed that 32% of students had been bullied at least once in the month before the survey and 12% had been bullied five times or more. The survey also found that 23% of students bullied others at least once in the past month and 6% had been bullied or bullied others at least five times in the past month (Ferrell-Smith, 2003). Utilizing data from the 2005 Health Behavior in School-Aged Children Survey (HBSC), Wang, Iannotti, and Nansel (2009) studied school bullying among adolescents in the United States. They found high prevalence rates across

various forms of bullying and presented the overall rates for individuals involved in bullying behavior (either as bullies, victims, or bully-victims) at school at least once over the previous two months. These rates were 20.8% for physical bullying, 53.6% for verbal bullying, 51.4% for social bullying, and 13.6% for electronic/cyber bullying. A more recent study conducted by Hymel and Swearer (2010) found that 35% of students reported bullying others at least once in the past two months, 34% reported being bullied at least once in the past two months, and 11% reported being bullied more than two or three times in the last two months.

Current research directions

Although bullying among children is not a new phenomenon, it was historically given little attention and often thought to be a normal part of social development. A broader understanding of bullying originated with the work of Dan Olweus in the 1970s. His research on bullying, coupled with the suicides of three boys in Norway in the early 1980s, led to a growing interest in bullying as a serious social issue. A series of tragic events in the United States in the 1990s also raised public awareness and gave rise to the systematic study of bullying, as research revealed that violent school events, such as the shootings at Columbine, were often perpetuated by individuals who felt persecuted, bullied, or threatened by their peers (Limber, 2002). Studies on the prevalence of bullying, the characteristics of children who bully and the effects of bullying on victims, bystanders, families, schools, and communities make up a significant portion of the research literature on bullying in schools (Limber, 2002; Nansel et al, 2001; Olweus, 1993). With the development of numerous prevention and intervention programs to address the problem of bullying, increasing empirical attention has also been given to the design, efficacy, and outcomes of these efforts (Baldry & Farrington, 2007; Smith, Pepler, & Rigby,

2004; Ttofi & Farrington, 2011; Vreeman & Carroll, 2007).

Teacher Intervention in Bullying Situations

The likelihood that teachers will intervene in bullying situations is influenced by a number of factors including: teacher attitudes about the perceived seriousness of the bullying situation, teachers' level of empathy, and teachers' efficacy beliefs. A greater understanding of the factors that influence teacher intervention recognizes the inherent complexity of these decisions and supports the importance of intervention and prevention programs grounded in a broad social-contextual framework.

Teachers' attitudes about the perceived seriousness of bullying likely play a role in influencing their decision to intervene. In a study examining characteristics that predict teacher intervention in indirect bullying, Dedousis-Wallace and Shute (2009) found that teachers' attitudes about the perceived seriousness of the situation were the greatest predictor of their intervention. Utilizing a longitudinal experimental design, they measured teachers' beliefs about the perceived seriousness of bullying prior to and following participation in a presentation on the mental health impact of bullying. The authors found that teachers' attitudes about the perceived seriousness of bullying not only held over time but were also strengthened by participation in the educational presentation on the effects of bullying. Yoon (2004) also found that perceived seriousness of the bullying situation was a significant predictor of teacher intervention. In her study, participants rated the seriousness of bullying behavior, their level of empathy, and the likelihood of their intervention following the reading of several bullying vignettes. Correlation analysis revealed that teachers who had higher ratings on the perceived seriousness of the situation also indicated that they would be more likely to intervene in the bullying situations.

Multiple regression analysis further revealed that the perceived seriousness of the bullying situation was the most important predictor of teacher involvement. A study conducted by Ellis and Shute (2007) on the influence of moral orientation on teachers' responses to bullying also examined the role of perceived seriousness. The authors found that while moral orientation played a role in teacher's responses, beliefs about the perceived seriousness of the incident were more important in predicting involvement in bullying situations. In a study on teachers' views and beliefs about bullying, Kochenderfer-Ladd and Pelletier (2008) found that teachers' attitudes about bullying predicted the likelihood of their intervention in bullying situations. Specifically, the authors found that teachers who viewed bullying as a normative behavior (a behavior which helps children learn social norms) were not as likely to intervene. On the other hand, teachers who held assertive beliefs ("children would not be bullied if they would stand up for themselves") or avoidant beliefs ("children would not be bullied if they avoided mean kids") were more likely to intervene in bullying situations (Kochenderfer-Ladd & Pelletier, 2008, p. 433).

Empathy also represents an important factor in influencing teachers' decisions about intervening in bullying situations. A study conducted by Craig, Henderson, and Murphy (2000) examined prospective teachers' attitudes toward bullying and found a connection between global empathy and the likelihood of intervention in bullying situations. Hierarchical multiple regression revealed that empathy predicted 11 percent of the variance in the scenarios which depicted physical bullying and 16 percent of the variance in the scenarios characterized by verbal aggression. Dedousis-Wallace and Shute (2009) also found that global empathy was a significant predictor of the likelihood of intervention in a study which examined teacher

characteristics and indirect bullying. Measures of both specific empathy for the victim and global empathy were included in the study, with results showing that global empathy is the stronger predictor of intervention in situations of indirect bullying but not in direct bullying. In two separate studies, Yoon (2004) and Yoon and Kerber (2003) examined specific empathy toward the victim and found a correlation between empathy and teacher responses to bullying as well as teacher attitudes about bullying.

The literature examining the connection between efficacy and bullying also reveals that teachers with stronger efficacy beliefs are more likely to intervene in bullying situations. In a study of teacher attitudes and interventions in bullying situations, Yoon (2004) examined whether self-efficacy beliefs were likely to influence teacher behaviors toward bullying. Correlation analysis assessed the relationship between teachers' responses to bullying vignettes and scores on a teaching efficacy measure and revealed that teachers with higher levels of efficacy had higher ratings on the likelihood of intervention. Multiple regression analysis revealed that efficacy beliefs were a significant predictor of teacher involvement in bullying situations (Yoon, 2004). Bradshaw, Sawyer, and O'Brennan (2007) also conducted a study which examined the impact of teachers' efficacy beliefs on intervention decisions in bullying situations. The results revealed that teachers who believed they had effective strategies for managing bullying behaviors were less likely to perceive bullying as a moderate or serious problem. In addition, teachers with higher efficacy beliefs were more likely to intervene in bullying situations, feel safer at school, and hold more positive beliefs about the overall climate in their schools (Bradshaw et al., 2007). A recent study conducted by Duong & Bradshaw (2013) examined the impact of teachers' perceived efficacy in handling bullying behaviors on intervention. Structural equation modeling

revealed that perceived efficacy was positively associated with teachers' likelihood of intervention. Even when examining differences in intervention by school level and teaching experience, the researchers found that the positive association between efficacy and intervention remained (Duong & Bradshaw, 2013).

Teacher Responses to Bullying

Research reveals that there is often a mismatch between teachers' beliefs about their response to bullying and student perceptions of their interventions. Several studies examine both the ways in which teachers respond to incidents of bullying and student's beliefs about teachers' effectiveness in recognizing and resolving bullying incidents.

Studies show that teachers are likely to employ a number of different strategies when responding to incidents of bullying. In a study examining teachers' intervention strategies, Yoon and Kerber (2003) found that teachers reported they would discipline perpetrators in about 50% of verbal and physical bullying incidents and 10% of incidents involving social exclusion. In situations of social exclusion, teachers reported they would be more likely to talk with the involved students. The remaining strategies employed by teachers included ignoring the bullying situation and allowing students to "work it out" (Yoon & Kerber, 2003). In a study examining staff strategies for handling bullying incidents, teachers and school counselors indicated how likely they would be to utilize various strategies in response to a hypothetical bullying situation (Bauman, Rigby, & Hoppa, 2008). The authors calculated overall scale scores for both teachers and counselors and used these scores to evaluate the likelihood that each of the five strategies would be employed. A neutral point for the scales was set at 3.0. Results indicated that teachers were most likely to discipline the bully (4.52), enlist other adults (4.0),

and work with the bully (3.60). The mean score for working with victims fell below the neutral point at 2.98, indicating that teachers were less likely to employ this strategy. Teachers' mean score for ignoring the bullying incident (1.50) was also well below the neutral score, thus indicating that teachers viewed the use of this strategy as unacceptable (Bauman et al, 2008). Marshall, Vargas, Meyers, Graybill, and Skoczylas (2009) conducted a qualitative study examining teachers' self-reported responses to bullying. The authors found that the majority of teachers reported that they did not ignore bullying situations but rather responded by talking to students and disciplining the perpetrators. These teachers stated that they not only addressed inappropriate behavior with students but also informed administrators, counselors, and parents of the bullying situations (Marshall et al., 2009).

Studies also reveal that students are often not confident in their teachers' ability to recognize and respond to bullying. Bradshaw, Sawyer, and O'Brennan (2007) conducted a study looking at differences between students and school staff perceptions of bullying and victimization at school, gathering data from students and staff in a district-wide survey of bullying. Results indicated that the majority of students believed that staff not only did nothing to stop bullying but also made the bullying situation worse when they intervened. In addition, 67% of middle school students and 60% of high school students felt that their school wasn't doing enough to prevent bullying. An earlier study conducted by Rigby and Bagshaw (2003) also found that 40% of students believed their teachers were not interested or only sometimes interested in stopping bullying. Students also reported having little faith in their teachers' ability to manage bullying situations. In addition, the authors looked at collaboration between teachers and students and found that 49.6% of boys and 57.3% of girls were unsure about the benefits of

working collaboratively with teachers to stop bullying (Rigby & Bagshaw, 2003). Studies conducted by Smith and Shu (2000) and Rigby and Barnes (2002) both highlight students' beliefs that teacher involvement in bullying does little to improve the situation. The study conducted by Smith and Shu (2000) revealed that teachers took some action to stop incidents of bullying in 80% of the cases. However, further analysis showed that 28% of students not only believed these actions yielded no change but 16% of students also believed that the bullying actually got worse when teachers intervened (Smith & Shu, 2000). Rigby and Barnes (2002) also found that as students got older, their belief that telling a teacher about bullying would yield a positive outcome diminished. In fact, approximately 10% of students in their study believed that the bullying situation worsened when adults, especially teachers, were informed of the bullying (Rigby & Barnes, 2002).

Studies reveal that the type of bullying behavior (physical, verbal, relational, direct, or indirect) displayed also impacts teachers' responses to bullying. In a recent study, Small, Neilsen-Hewett, and Sweller (2013) found that teachers reported likelihood of intervention was influenced by the type of bullying situation being presented. The researchers gathered data from 310 early childhood teachers and student teachers to explore both individual and contextual factors impacting teacher responses to bullying. Results of their MANOVA analyses revealed that participants not only viewed incidents of physical bullying as more serious than incidents of verbal and relational bullying but they were also more likely to intervene in situations involving physical bullying (Small et al., 2013). Earlier studies conducted by Craig et al. (2000) and Yoon & Kerber (2003) support these finding and demonstrate that teachers are more likely to intervene when the situations represent physical rather than verbal or relational forms of bullying.

Organizational Characteristics and Bullying

Although less research has been conducted on the relationship between teachers' intervention decisions and aspects of the school organization, there is evidence that organizational factors play a role in influencing bullying behaviors in schools. The majority of studies which consider organizational characteristics tend to focus on the connection between school climate and bullying. A few studies examine other organizational factors that may influence bullying behavior within schools, such as school and class size. Taken together, these findings provide a framework for considering the role that organizational characteristics might play in predicting the likelihood of teachers' intervening in bullying situations.

The National Education Association (NEA) conducted one of the only studies which specifically examined school climate and teachers' willingness to intervene in bullying situations. The NEA surveyed teachers and educational support professionals about a variety of issues related to bullying, including the link between school connectedness and their willingness to intervene in bullying situations (Bradshaw, Waasdorp, O'Brennan, & Gulemetova, 2011). Employing web and phone surveys, data from 1,601 teachers and 2,142 educational support professionals was gathered. The authors, utilizing descriptive, multivariate, and regression analyses, found that connectedness to school influenced teachers' willingness to intervene in bullying situations. Willingness to intervene was also related to teachers' relationships with colleagues and administrators, their perceptions of safety, and their overall sense of belonging (Bradshaw et al., 2011). The study revealed that teachers were more willing to intervene when they believed others in their school were also likely to intervene and when they had effective strategies for dealing with bullying behavior. In the summary of findings, the authors linked

teachers' reports of connectedness to the school community with school climate. They posited that school climate plays a central role in predicting how willing teachers are to intervene in bullying situations and encouraged schools to adopt prevention programs which emphasize the importance of creating supportive school environments (Bradshaw et al., 2011).

The majority of studies examining the connection between school-level characteristics and bullying behavior focus on school climate. Although the definition of climate varies from study to study, most studies find that teacher and student perceptions of school climate do influence bullying behaviors within schools. One of the first studies examining bullying in the United States found that students who bullied others had a poor perception of school climate compared with students who were either victims or bully-victims (Nansel et al., 2001). A more recent study conducted by Swearer, Peugh, Espelage, Siebecker, Kingsbury, and Bevins (2006) also found an association between a negative school climate and greater acceptance of bullying by students. Students in three middle schools completed a survey which, in part, examined their experiences with bullying, perceptions of bullying, attitudes toward bullying, and thoughts about school. Multinomial logistic regression revealed a significant inverse relationship between peer attitudes toward bullying and school climate scores for all three schools. These results suggest that students who engage in bullying behaviors are not only more supportive of bullying but also perceive a negative climate within their schools (Swearer et al., 2006). A study examining the impact of exposure to relational aggression found that increased exposure to aggression was related to students' feeling unsafe and feeling less positive about the general social atmosphere in school (Goldstein, Young, & Boyd, 2008). In addition, increased exposure was also associated with carrying weapons to school for male respondents (Goldstein, Young, & Boyd, 2008). A

study conducted by Meyer-Adams and Conner (2008) also reveals a connection between school violence and negative student perceptions of the psychosocial environment. Their findings show that both victims of bullying behaviors and students engaging in bullying behaviors hold negative views of the school environment. The study revealed that a negative psychosocial environment also predicts students carrying weapons to school (Meyer-Adams & Conner, 2008). Kasen, Berenson, Cohen, and Johnson, (2004) also demonstrate how an informal and unstructured school environment influences the development of a negative school climate which, in turn, supports aggressive and coercive patterns of interaction among students.

In so much as a negative school climate is associated with bullying behaviors, positive school climates also impact bullying in schools. Early on in the study of bullying, Olweus (1993) supported the development of a positive "social milieu" as a key strategy for addressing bullying in schools. Olweus (1993) posited that when teachers quickly and consistently respond to bullying situations they create a school culture which discourages bullying behaviors. A more recent study by Eliot, Cornell, Gregory, and Fan (2010) also examined how school climate impacts bullying by looking at the relationship between a supportive school climate and student willingness to seek help from adults. A supportive school climate represented the degree to which students perceived that the adults at their school respected them, wanted them to do well, and cared about them. Hierarchical linear modeling revealed that a supportive school climate, at both the individual- and school-level, was significantly and positively associated with students' willingness to seek help for bullying at school (Eliot et al., 2010). A supportive school climate can also moderate the effect of bullying as evidenced in a study by Gendron, Williams, and Guerra (2011). In this study, school climate influenced the likelihood that students with high

self-esteem would engage in bullying behavior. Holding levels of self-esteem constant, the authors found that students who perceived a supportive school climate were less likely to bully others, whereas students who viewed their school climate as less supportive were more likely to engage in bullying behaviors (Gendron et al., 2011). In a study examining organizational trust and student bullying, Smith and Birney (2005) found a relationship between student bullying, teacher protection, and faculty trust. Specifically, their analysis revealed that teachers who had greater trust in colleagues, students, and parents reported higher levels of teacher protection and lower levels of student bullying. The study also revealed that faculty trust influenced teacher protection in so much as teachers who trusted each other were more likely to protect to students by working together to create a safe school environment (Smith & Birney, 2005). A meta-analysis conducted by Cook, Williams, Guerra, Kim, and Sadek (2010) also found that school climate significant predicted bullying and victimization for children and adolescents. The meta-analysis focused on research looking at the individual and contextual predictors of bullies, victims, and bully victims. School climate was a significant contextual predicator of bullying behavior for all three bully status groups with the largest effect shown for victims. The authors concluded that contextual factors, such as school climate, play an important role in the development and maintenance of bullying (Cook et al., 2010).

The research literature is increasingly focusing on the impact of school culture and climate characteristics on the implementation and sustainability of bullying prevention efforts. In a qualitative study of junior high staff, Coyle (2008) found that school culture characteristics played an important role in the successful implementation of the Olweus Bullying Prevention Program. Coyle (2008) utilized a variety of qualitative data collection methods and identified

school culture characteristics that both impede and support program implementation. The themes that emerged in relation to the impeding factors included school size, lack of diversity within the local community, and a lack of openness to change within the local community (Coyle, 2008). In particular, participants believed that a larger school size negatively impacted program implementation and their ability to build supportive relationships with students. The themes that supported program implementation included: program fidelity; common language usage about bullying: clear norms and rules against bullying; realistic program implementation expectations; a central focus and support for learning; and, a sense of caring, collaboration, and connection among staff (Coyle, 2008). Teacher-level and school-level factors also played a significant role in predicting the likelihood of teachers' and schools' implementation of the Olweus bullying prevention program in a study conducted by Kallestad and Olweus (2003). They collected data from teachers and schools at two points in time and utilized multilevel modeling to analyze the data. Findings revealed that schools with a higher degree of openness in communication among teachers also had higher rates of teachers' who implemented the program. In addition, broader school-level attention given to bullying problems by administrators and the larger school community represented an important predictor of program implementation (Kallestad & Olweus, 2003). Teacher's beliefs about the perceived level of bullying in their classrooms and beliefs about their importance in counteracting bullying within the school also proved to be significant predictors in the implementation of the program (Kallestad & Olweus, 2003).

The research literature examining the impact of other organizational factors on bullying behavior is less prevalent and the results are often inconclusive. For example, some studies

examining the impact of school size on bullying and other forms of violence show school size to be a salient contextual factor while other studies have not. Ma (2002), for example, found that school size significantly impacted bullying behavior in so much as students from large schools were less likely to engage in bullying than students from small schools. Research conducted by Bowes, Arseneault, Maughan, Taylor, Caspi, and Moffitt (2009) also supports and extends this finding. In this study, the authors examined the influence of school, neighborhood, and family factors on bullying involvement. Multinomial logistic regression showed that while students in larger schools were less likely to engage in bullying, they were at an increased risk for being victims of bullying (Bowes et al., 2009). However, studies conducted by Olweus (1995), Khoury-Kassabri, Benbenishty, Astor, and Zeira (2004), and Wei, Williams, Chen, and Chang (2010) all find that school size is not significantly associated with bullying and victimization. Studies on class size yield mixed results as well with some finding that class size plays a role in bullying behaviors (Blatchford, Edmonds, & Martin, 2003; Khoury-Kassabri et al., 2004) and others finding that class size is not linked to bullying and victimization (Scheithauer, Hayer, Petermann, & Jugert, 2006).

A smaller body of research looks at the influence of anti-bullying training and policies on teachers' handling of bullying situations, with studies emphasizing the importance of training (Bauman & Del Rio, 2003; Craig, Henderson, & Murphy, 2000; Yoon & Kerber, 2003). Bauman, Rigby, and Hoppa (2008) conducted a study considering the influence of previous participation in anti-bullying training as well as the presence/absence of anti-bullying policies and programs on teachers' and counselors' responses to bullying. The study asked participants to indicate how they would respond to a bullying incident, specifically looking at the likelihood that

they would ignore the incident, work with the bully, work with the victim, enlist other adults, and discipline the bully. A series of *t*-tests revealed that teachers who participated in anti-bullying training were less likely to ignore the bullying incident. Teachers who worked in schools with specific anti-bullying programs were also less likely to ignore the bullying incident. In addition, teachers were more likely to enlist the help of other adults and were less likely to ignore the incident in schools with an anti-bullying policy (Bauman et al., 2008). Another recent study examined the impact of anti-bullying training on teachers' response to bullying (Sairanen & Pfeffer, 2011). Two-way mixed analysis of variance and independent *t*-tests revealed that participation in anti-bullying training was a significant factor in explaining teachers' responses to incidents of bullying. Junior high school teachers who participated in anti-bullying training scored significantly higher on measures related to how they would work with victims, work with the bully, discipline the bully, and elicit help from other adults. Teachers who completed the training were also less likely to report that they would ignore a bullying incident than teachers who did not participate in anti-bullying training (Sairanen & Pfeffer, 2011). Sairanen and Pfeffer (2011) also examined teachers' awareness of anti-bullying policies. The authors found that while the majority of teachers had some knowledge of the policy, sixteen percent reported that their school either had no policy, was not implementing anti-bullying measures, or that they were not aware of a policy (Sairanen & Pfeffer, 2011).

School Violence

Given the fact that bullying is considered to exist along a continuum of violence (Astor, Meyer, & Behre, 1999; Benbenishty & Astor, 2005; Marachi, Astor, & Benbenishty, 2007a), a brief review of the school violence literature provides some insight into the characteristics which

may influence outcomes related to bullying.

Many of the studies exploring school violence focus on the relationship between school climate and perceptions of safety (Kitsantas, Ware, & Martinez-Arias, 2004; Stewart, 2003; Welsh, 2000). For example, Bosworth, Ford, and Hernandaz (2011) utilized focus groups to explore school climate factors which contributed to student and teacher perceptions of school safety. Three categories emerged from their research, including: physical characteristics and safety features; organization and school discipline; and, school staffing and relationships. Students and teachers associated security cameras, locked doors, safe neighborhoods, and a small school size with greater feelings of safety. Students also discussed how a clear and consistent discipline system as well as a climate in which teachers were actively engaged in managing students' behavior contributed to their perceptions of school safety. While teachers also recognized the importance of a positive and supportive climate, they believed that their relationships with students played a larger role in influencing their perceptions of safety. In addition, teachers and students both discussed the importance of having adequate staffing to support a safe school environment (Bosworth et al., 2011). Gottfredson, Gottfredson, Payne, and Gottfredson (2005) also conducted a study examining school crime and disorder in light of characteristics associated with school climate. Although their analysis revealed that the majority of variance on measures of school disorder was the result of within-school variance, an important portion of the variance was between-schools. Findings revealed several organizational characteristics which contributed to student and teacher experiences of school disorder. Schools located in areas of residential crowding and concentrated poverty as well as those serving high percentages of African Americans had students and teachers that reported higher levels of school

disorder. School climate was also played an important role in students' and teachers' perceptions of school disorder. The school climate variable included several measures of students' perceptions of the fairness and clarity of rules as well as teachers' perceptions of organizational focus, morale, planning, and administrative leadership (Gottfredson et al., 2005). A recent review of twenty-five studies revealed several school environment factors which impact the level of violence in schools (Johnson, 2009). A classification system, consisting of nine constructs, examined the specific elements within the school environment that influenced levels of school violence. Findings revealed an association between lower rates of school violence and positive student/teacher relationships, positive classroom/school environments, and students who felt they had ownership in their school. In addition, lower rates of violence correlated with an awareness of school rules and safety interventions focused on reducing the amount of perceived school disorder (Johnson, 2009).

The research literature also emphasizes the importance of examining both individual and contextual factors associated with school violence and perceptions of safety (Astor & Meyer, 2001). Studies focus on a variety of factors and represent a broadening understanding of the multifaceted relationship between school contexts and school violence. Several studies support a connection between higher levels of teacher support and lower levels of school violence (Bosworth et al., 2011; Johnson, 2009; Marachi, Astor, & Benbenishty, 2007a). In fact, research conducted by Marachi et al., (2007a) shows that perceptions of teacher support are strongly and consistently associated with lowered rates of victimization. Other factors associated with lowered perceptions of school violence include the presence of school policies addressing violence (Marachi, Astor, & Benbenishty, 2007b) as well as a leadership style within schools that

inspires collective awareness and personal responsibility for action (Astor, Benbenishty, & Estrada, 2009). Astor and colleagues (1999, 2009) also examined the relationship between school violence and unsupervised areas within a school setting. The mapping techniques employed in their research reveal that the presence of teachers and the monitoring of student behavior in all areas of a school play a significant role in reducing violence and victimization. A few studies also examine teachers' reasoning about intervening in school violence. Behre, Astor, and Meyer (2001) compared elementary and middle school teachers' responses to violence in various school subcontexts (playgrounds, hallways, cafeterias) and found differences between the two. Middle-school teachers were less likely to intervene in all school areas whereas elementary teachers viewed all school subcontexts as their responsibility. In addition, complex moral, social-conventional, and personal explanations informed middle school teachers' reasoning about intervention (Behre et al., 2001). In later studies, Meyer, Astor, and Behre (2002, 2004) posit that teachers' reasoning about intervening in school violence is influenced by additional factors including gender, location, assumptions about risk of physical harm, and beliefs about professional roles and responsibilities.

Current Study

To date, the research examining the factors which influence teacher intervention in bullying situations focuses primarily on the role of individual teacher characteristics, such as attitudes, empathy, and individual efficacy beliefs, on intervention decisions. The connection between organizational characteristics and teacher intervention in bullying situations receives less attention in the literature. The studies which do examine organizational factors focus primarily on the relationship between school climate and bullying behavior. Despite the

enactment of anti-bullying legislation across the country, there is also a paucity of research on the impact of these policies on bullying. By examining teachers' perceptions of a school's organizational characteristics, this research explores teachers' intervention decisions in bullying situations within a broader social-contextual framework and recognizes that such decisions have the potential to be influenced by numerous factors.

CHAPTER 3

THEORETICAL FRAMEWORK

Bystander Intervention Theory

The role of the bystander in bullying situations has gained increasing attention over the years as the presence of bystanders "frequently provides the pivotal social sanction in promoting or preventing violence" (Stueve et al., 2006, p. 119). Research shows that bystanders in bullying situations have the ability to influence bullying behavior in a number of ways ranging from encouraging or fostering bullying to diffusing and preventing violence (Hudson & Bruckman, 2004; Stueve et al., 2006; Twemlow, Fonagy, & Sacco, 2010). An understanding of the bystander intervention literature provides a theoretical framework for considering what motivates bystander behavior in schools. For example, Stueve et al. (2006) highlight how Latané and Darley's (1970) research on the bystander effect can inform our understanding of intervention decisions within the school setting. They posit that the concept of audience inhibition is especially relevant in a school setting because multiple bystanders are often present when bullying occurs and thus teachers might refrain from intervening for fear of embarrassment, fear of being blamed for intervening or not intervening, fear of retaliation, and fear of being stigmatized by both students and staff (Hudson & Bruckman, 2004; Stueve et al., 2006). The empathy/altruism model of bystander intervention offers insight into the role of emotion and recognizes that intervention decisions are often influenced by individual feelings and beliefs. Given the fact that schools are organizations comprised of many individuals, this model offers another perspective for considering the factors which may influence intervention decisions. Finally, the ecological orientation of Baynard's (2011) model of bystander intervention provides

a framework for considering multiple variables which may influence intervention decisions within the context of complex social systems, such as a school. The ecological model is especially relevant when considering the interplay of individual and organizational characteristics on the likelihood of teachers' intervening in bullying situations.

Decision model of bystander intervention

The roots of bystander intervention theory are grounded in the work of Bibb Latané and John M. Darley (1968, 1970). Their seminal studies provided a foundation upon which a body of research emerged examining the social psychological conditions which influence intervention in both emergency and non-emergency situations. Latané and Darley (1970) conducted a series of studies to examine the factors which influence a person's decision to intervene in an effort to better understand what motivates helping behavior. Their research consistently demonstrated what has become known as the bystander-effect, namely that the presence of bystanders influences whether or not an individual is likely to intervene and help a victim in a critical situation. The early studies conducted by Latané and Darley (1970) followed a classic bystander research paradigm (Fischer et al., 2011). These studies, utilizing a variety of staged emergencies (e.g. smoke filling a room, a woman injuring herself, a theft, and an individual having a seizure), involved assessing individual reactions and reaction times for participants who were alone or in the presence of other participants. In order to determine if the presence of other bystanders impacted helping behavior, Latané and Darley compared the results of the single bystander scenarios with those of multiple bystanders. The application of this research paradigm yielded results which consistently supported the influence of the bystander-effect in both emergency and nonemergency situations (Fischer et al., 2011; Garcia, Weaver, Moskowitz, & Darley, 2002;

Hudson & Bruckman, 2004; Karakashian, Walter, Christopher, & Lucas, 2006).

The experiments conducted by Latané and Darley (1968) led to questions about the role of norms in guiding behavior (Horowitz, 1971). Norms, while believed to influence behavior, did not play in active role in determining whether or not someone would intervene in an emergency or nonemergency situation. Instead, Latané and Darley (1970) postulated that the decision to intervene was the result of a five-step psychological process. The model they developed identifies a series of decisions an individual must make if he is to intervene in an emergency. These behavioral and cognitive processes include: (1) the bystander noticing that something is happening, (2) the bystander interpreting the event as an emergency, (3) the bystander deciding that she is personally responsible to act, (4) the bystander deciding what type of assistance to give and whether he is capable to do so, and (5) the bystander deciding how to implement her decided course of action (Latané & Darley, 1970).

Latané and Darley (1970) also identify three social psychological processes which may impact helping behavior when multiple bystanders are present. These processes contribute to bystander inaction and include audience inhibition, social influence, and diffusion of responsibility (Latané & Nina, 1981). Audience inhibition occurs when bystanders question their perception of the situation and avoid taking action for fear of embarrassment if the situation is not actually an emergency or if they fear that others will negatively evaluate their behavior. Social influence, on the other hand, is believed to inhibit helping when individuals observe the inaction of others and judge the situation to be one in which they should not become involved (Latané & Nina, 1981). And finally, diffusion of responsibility refers to the process which occurs when bystanders perceive that others are present and available to respond. The degree of

personal responsibility becomes diminished and inaction often follows. These three processes provide some insight into why individuals may or may not intervene in critical situations (Laner, Benin, Ventrone, 2001).

Empathy/Altruism model of bystander intervention

The empathy-altruism model of bystander intervention hypothesizes that empathic emotion produces altruistic motivation. Batson (1991) defines altruism as "a motivational state with the ultimate goal of increasing another's welfare" (p. 6) and departs from the theory of motivation offered in the decision model of helping behavior by emphasizing emotion rather than cognition. Batson (1991) posits that the primary mechanism of helping stems from the emotional reaction one experiences in response to another's problem. Witnessing another person in need produces empathic concern which, in turn, produces helping behavior and the desire to reduce the distress of the person in need (Batson & Oleson, 1991).

Batson (1987) proposes three "paths" to helping. The first path represents reward-seeking egoistic motivation, the second path represents arousal-reducing egoistic motivation, and the third path represents empathically evoked altruistic motivation. Batson's (1987) model emphasizes the third path and hypothesizes that it is empathic emotion which leads to greater sensitivity toward the well-being of others. His theoretical argument is grounded in the belief that empathy is a specific emotion that leads to altruistic motivation. Through a series of experiments designed to study why people help, he demonstrated that high empathy motivates intervention driven by altruism, whereas low empathy only motivates intervention driven by egoistic needs (Dovidio, Piliavin, Schroeder, & Penner, 2006). Thus, Batson (1987) contends that an altruistically motivated person will intervene when helping is possible, when the benefit

of helping is seen as positive, and when the benefit of helping is more positive than the benefit of someone else helping.

Ecological model of bystander intervention

The development of an ecological model for understanding bystander behavior has grown in popularity in recent years (Banyard, 2011; Banyard, Plante, & Moynihan, 2004; McMahon & Banyard, 2012). The ecological model expands earlier individual models by focusing on the influence of broader community contexts and variables associated with peers and community members on bystanders' intervention decisions (McMahon & Baynard, 2012). Banyard (2011) contends that important community-level variables may promote or hinder bystander intervention as individuals make decisions about their helping behavior within a broader community context. An ecological perspective shifts the focus in prevention efforts from changing individuals to changing peer and community norms and behaviors (Banyard, 2011; Banyard, Plante, & Moynihan, 2004; McMahon & Banyard, 2012).

The ecological model of bystander intervention draws upon Bronfenbrenner's (1979, 2005) ecological systems theory which contends that all individuals are a part of interrelated systems that interact to influence human development and behavior. The ecological systems model is focused on process and emphasizes the role both proximal and distal mechanisms play in shaping an individuals' development and behavior. The proximal mechanisms represent the features in an individual's immediate environment which bring about change, whereas the distal mechanisms represent those features which exist beyond an individual's immediate environment yet have the power to influence the proximal processes (Bronfenbrenner, 1988, 2005). Thus, the ecological environment is viewed as a set of interrelated, nested structures with the individual at

the center.

Bronfenbrenner (1988, 2005) describes four progressively more comprehensive contexts of development in his model: microsystems, mesosystems, exosystems, and macrosystems. Microsystems are the contexts that have a direct impact on an individual's development and behavior and include the immediate relationships and environments surrounding an individual. Family and peer groups play a central role in the microsystem. Bronfenbrenner (1994, 2005) contends that the mesosystem represents two or more settings of which the individual is in directly a part. The mesosystem includes the interrelationship between the systems in an individual's life, such as home and school, and is essentially a system of microsystems (Bronfenbrenner, 1988). The exosystem represents the relationship between two or more settings, one of which an individual is not directly situated. However, the events in these settings indirectly influence the processes which occur in an individual's immediate environment. As Bronfenbrenner (1988, 2005) describes, an example of an exosystem for a child would be the relationship between the home and parents' workplace. While children do not directly participate in their parent's workplace, events at work directly impact the parents which, in turn, impact the child. Bronfenbrenner (2005) describes the macrosystem as the "overarching pattern of micro-, meso-, and exosystems characteristic of a given culture, subculture, or other broader social context" (p. 149). The macrosystem can include such things as the belief systems, resources, customs, opportunity structures, and ideologies of the larger culture or subculture which ultimately affect the processes occurring in the microsystems (Bronfenbrenner, 1994).

A final important component of Bronfenbrenner's (1979, 2005) theory relates to what he has termed the chronosystem. Bronfenbrenner (2005) situates his model within the context of

time and posits that characteristics of the individual and the environment in which they live change over time. He contends that the nature of any ecological system is to change and identifies that changes in family structure, socioeconomic status, employment, resources, and levels of stress all have the potential to influence individual development and behavior over time.

The use of an ecological model as a framework for studying bullying is supported in literature, as researchers and school personnel are increasingly recognizing the need to contextualize bullying and youth violence within a social-ecological framework (Benbenishty & Astor, 2005; Card, Isaacs, & Hodges, 2008; Espelage & Swearer, 2004; Espelage & Swearer, 2010). A social-ecological model acknowledges that youth behaviors, such as bullying and peer victimization, are shaped by both individual characteristics and the contextual systems of the family, peer group, school, community, and society (Espelage & Swearer, 2010).

A broader social-contextual framework extends the focus of prevention and intervention efforts beyond work with individuals to include strategies designed to empower the larger school community. One such approach gaining popularity in the literature involves activating the role of the bystander (Frey, Hirschstein, Edstrom, & Snell, 2009; Salmivalli, Karna, & Poskiparta, 2010). Bystanders, having the ability to either promote or discourage bullying and victimizing behaviors, are increasingly thought to play an important role in shaping the social context of bullying (Espelage & Swearer, 2003; Kärnä, Voeten, Poskiparta, & Salmivalli, 2010; Twemlow, Fonagy, & Sacco, 2010). In fact, several studies have found that the response of bystanders can impact the overall climate of schools because limited intervention by bystanders can leave individuals to question the overall safety of their school community (Bradshaw, Sawyer, & O'Brennan, 2007; Limber, 2002; Yoon & Kerber, 2003). The influence of adult bystanders is of

particular interest to schools given the fact that teachers and other adult school personnel play a significant role in the social-ecology of youth (Espelage & Swearer, 2010). Several studies not only support the central role teachers play in bullying prevention and intervention efforts but also find that these efforts are enhanced when teachers are involved in the process (Hirschstein, Van Schoiack Edstrom, Frey, Snell, & MacKenzie, 2007; Kasen, Berenson, Cohen, & Johnson, 2004; Nicholaides, Toda, & Smith, 2002; Novick & Isaacs, 2010; Salmivalli, Kaukiainen, & Voeten, 2005). Students also support teachers taking on the role of active bystanders in bullying situations as indicated by a study which found that students would like their teachers to become more involved in bullying prevention and intervention efforts (Crothers, Kolbert, & Baker, 2006).

Efficacy Theory

Over the past 30 years, researchers have been interested in the link between efficacy beliefs and human behavior. Bandura's (1986, 1997) social cognitive theory provides a framework for examining human agency and the ways in which individuals and groups exercise control over their lives. Individual and collective efficacy beliefs about ones' perceived capabilities and effectiveness in various situations are important to understanding the motivation, effort, and persistence given to both individual and collective action (Goddard, 2001). Efficacy theory provides a foundation for considering the influence of individual and collective efficacy beliefs on the likelihood of teachers' intervening in bullying situations (Bradshaw, Sawyer, O'Brennan, 2007; Novick & Isaacs, 2010; Yoon, 2004).

Self-efficacy

Bandura (1997) defines perceived self-efficacy as "beliefs in one's capabilities to organize

and execute the courses of action required to produce given attainments" (p. 3). Self-efficacy is a future-oriented belief in one's ability to shape behavior in a given situation and represents a dynamic construct which is continuously influenced by changing circumstances and new information (Gist & Mitchell, 1992). Bandura (1986, 1997) posits that self-efficacy beliefs not only influence one's emotions and thought patterns but also shape the action, effort, persistence, and perceived control over the events in one's life. Self-efficacy theory emphasizes two types of expectations central to the development of efficacy beliefs. Outcome expectations represent a belief that a given behavior will produce a certain outcome whereas efficacy expectations are the beliefs in one's ability to execute the action needed to achieve a desired outcome. These expectations are differentiated, as people can believe that certain behaviors produce certain outcomes; however, if they do not also believe in their ability to perform the necessary tasks, they will be unlikely to initiate action or persist in a given situation (Bandura, 1977). Several variables play a role in shaping these expectations, including life experiences, skills, and incentives (Bandura, 1977; Tobin, Muller, & Turner, 2006; Tschannen-Moran & Hoy, 2001). Bandura (1977) contends that self-efficacy beliefs not only influence the choices people make about engaging in a given activity or environment but also influence the amount of effort and persistence they will expend.

Self-efficacy expectations are based on four sources of information, namely performance accomplishments, emotional arousal, vicarious experiences, and social persuasion (Bandura, 1977; 1997). Performance accomplishments are based on personal mastery experiences and represent the most powerful source of efficacy beliefs. Successful experiences build efficacy beliefs while perceptions of failure lower efficacy expectations. Repeated successes often lead to

a more generalized sense of efficacy, including expectations that future performances will be also be successful (Bandura, 1993; Tschannen-Moran, Hoy, & Hoy, 1998). Emotional arousal, including feelings of anxiety or excitement, can play a role in influencing efficacy beliefs by contributing to feelings of mastery or incompetence. Vicarious experiences are based on the observations of others (modeling) and represent a less influential way of building efficacy. Efficacy expectations can be enhanced or diminished depending on the performance of the model and the observers' identification with the model (Milner, 2002). Social persuasion can involve verbal feedback from others and is influenced by the credibility, trustworthiness, and expertise of the persuader (Bandura, 1997). Social persuasion may also encompass broader social norms, including beliefs about persistence and achievement (Milner, 2002). These sources of information provide a framework for considering not only the avenues by which individuals form efficacy beliefs but also the factors which influence their action and behavior. According to Bandura (1986), individuals with high outcome and efficacy expectations are likely to take action and persist when confronted with a challenging or stressful situation whereas those with low efficacy beliefs will not.

Collective efficacy

Collective efficacy represents a "group's shared belief in its conjoint capabilities to organize and execute courses of action required to produce given levels of attainments" (Bandura, 1997, p. 477). This shared belief captures the influence of group dynamics in shaping behavior and recognizes the interplay between perceptions of self and perceptions of the organization. Bandura (1997) posits that collective efficacy is associated with many aspects of a group including their tasks, effort level, persistence, stress level, shared thoughts, and

achievement. Collective efficacy beliefs thus represent the judgments people make about the competence and ability of a social system to collectively produce desired results (Bandura, 1986, 1997).

Collective efficacy beliefs are also influenced by the four sources of efficacy information proposed by Bandura in his theory of self-efficacy (Goddard, Hoy, & Hoy, 2000). As with self-efficacy beliefs, mastery experiences are the strongest predictor of collective efficacy beliefs. Repeated success builds group and organizational beliefs about perceived capabilities and effectiveness whereas failures undermine these beliefs. Organizations learn from experience and develop beliefs about their ability to achieve desired goals based on these experiences (Goddard, Hoy, & Hoy, 2000). Vicarious experiences also play a role in the development of collective efficacy beliefs as organizations learn by observing other organizations. Observations of both colleagues and other organizations serve as a model for guiding future behavior and action. Social persuasion has the potential to influence collective efficacy beliefs in several respects. Verbal persuasion, models of success, and positive experiences can impact an organization's beliefs about their capabilities as well as support the level of persistence needed to face challenges and difficult situations (Goddard, Hoy, & Hoy, 2000). Finally, the varied emotional states of individuals and organizations also play an important role in the development of efficacy beliefs at a collective level. Organizations are not immune to stress, and collective efficacy beliefs are often influenced, both positively and negatively, by the ways in which organizations manage these challenges (Goddard, 2001). Collective efficacy has also been found to have a normative influence on the behavior and environments of social systems (Caprara, Barbaranelli, Borgogni, & Steca, 2003; Goddard, 2001; Tschannen-Moran & Barr, 2004). Bandura (1997)

posits that individuals within a group do not function in isolation, as they are likely influenced by the social norms of the group. Collective efficacy beliefs have the power to influence the nature of social action and engender a shared sense of purpose, mission, commitment, and resilience.

Teacher efficacy and collective teacher efficacy

The concepts of teacher efficacy and collective teacher efficacy are based on the theoretical frameworks of efficacy developed by Bandura (1986, 1997) and represent the application of his theory to a specific profession and social system.

Teacher efficacy represents a teacher's belief about her ability to influence learning outcomes for all students (Tschannen-Moran & Hoy, 2001). The construct of teacher efficacy was first introduced in a study by the Rand Corporation. The Rand study included two questions which evaluated teachers' efficacy beliefs. The first question examined teachers' beliefs about their ability to influence student outcomes in spite of the student's home environment and the second question explored teachers' beliefs about their ability to get through to difficult and unmotivated students. Gibson and Dembo (1984) and Ashton and Webb (1986) expanded the methods utilized in the Rand study and linked the concept of teacher efficacy to the theoretical framework of self-efficacy developed by Bandura (1977). Ashton and Webb (1986) and Gibson and Dembo (1984) contend that teacher efficacy is based on two dimensions of efficacy, namely teaching efficacy and personal efficacy. Teaching efficacy represents beliefs about the impact teaching can have on specific student achievement outcomes whereas personal efficacy pertains to a teacher's belief about his/her own ability to foster this achievement (Soodak & Podell, 1993). These dimensions of teacher efficacy are linked to the outcome expectations and efficacy expectations identified by Bandura (1977). Taken together, these dimensions have been linked to

positive student outcomes and productive teacher behavior (Ashton & Webb, 1986; Gibson & Dembo, 1984; Tschannen-Moran, Hoy, & Hoy, 1998).

A significant body of research exists which examines the impact of teachers' self-efficacy beliefs on student and teacher outcomes. The research explores the connection between teachers' self-efficacy beliefs and student achievement and motivation (Ashton & Webb, 1986; Bandura, 1997; Goddard & Goddard, 2001; Tschannen-Moran & Hoy, 2001) as well as the relationship between efficacy and teacher behavior in the classroom (Ashton & Webb, 1986; Gibson & Dembo, 1984; Soodak & Podell, 1993). Higher levels of self-efficacy beliefs are also associated with various outcomes related to job satisfaction and commitment to the profession (Ashton & Webb, 1986; Caprara, Barbaranelli, Steca, & Malone, 2006; Gibson & Dembo, 1984; Tschannen-Moran & Hoy, 2001). A small body of literature also exists on the connection between teacher self-efficacy, school climate (Hoy & Woolfolk, 1993) and classroom management strategies (Ashton & Webb, 1986).

Collective teacher efficacy is defined as "the perceptions of teachers in a school that the faculty as a whole can execute the courses of action necessary to have positive effects on students" (Goddard, 2001, p. 467). Collective teacher efficacy represents a shared sense of purpose among teachers, a collective connectedness, and the recognition that individual teachers are a part of a larger social system (Tschannen-Moran & Barr, 2004). Collective teacher efficacy encompasses teachers' self-perceptions about their shared ability to make a difference in the lives of their students above and beyond the influences of home and community. Collective efficacy is based on the collective assessment of teaching tasks and competence as experienced by teachers (Goddard, Hoy, & Hoy, 2000). The analysis of the teaching task occurs at both the

individual and school level and involves an assessment of teaching outcomes. Several factors can influence this analysis, including student motivation and ability, availability of materials, community resources, community constraints, or a school's physical environment (Goddard, Hoy, & Hoy, 2000). The assessment of teaching competence involves judgments about the competence of others in light of the analysis of teaching tasks. These judgments may include assessments of teachers' skills, training, expertise, or teaching methods and can extend, at times, to beliefs about the abilities of students within the school. The interactions of these elements influence the collective teacher efficacy beliefs within a school and represent a group attribute rather than the aggregate of teacher's individual efficacy beliefs (Goddard, 2002; Tschannen-Moran & Barr, 2004). Collective efficacy beliefs are also influenced by collective mastery experiences, vicarious experiences, emotional states, and social persuasion (Goddard, Hoy, & Hoy, 2000). Coupled with assessments of the teaching task and teaching competence, these sources of information not only shape collective teacher efficacy beliefs but also influence the goals, effort, persistence, motivation, and outcomes achieved in a school (Goddard, Hoy, & Hoy, 2004).

Research supports the influence of collective teacher efficacy beliefs on student outcomes (Goddard, 2001; Goddard, Hoy, & Hoy, 2000; Tschannen-Moran & Barr, 2004). The studies conducted by Goddard (2001) and Goddard, Hoy, & Hoy (2000) utilized student and school level data to examine collective efficacy and student achievement across several schools. After controlling for demographic characteristics and prior achievement, they found that collective efficacy beliefs accounted for significant differences among schools in math and reading achievement. Tschannen-Moran and Barr (2004) also found a significant relationship between

collective efficacy beliefs and student achievement in their study of eighth grade students. Several other studies have been conducted which examine the impact of collective teacher efficacy on various outcomes including professional commitment (Milner, 2002; Ware & Kitsantas, 2007); job satisfaction (Caprara, Barbaranelli, Borgogni, & Steca, 2003; Goddard & Skria, 2006; Viel-Ruma, Houchins, Jolivette, & Benson, 2010); high school achievement (Hoy, Sweetland, & Smith, 2002); and early professional identity (Onafowora, 2005; Woolfolk & Hoy, 1990).

Organizational Health

The study of organizational climate has been of interest to social scientists, educational researchers, and business organizations since the 1950s (Hoy & Sabo, 1998). Climate refers to the quality of organizational life and represents an internal set of characteristics which define both individuals and organizations. The application of this concept to schools is receiving a great deal of attention in the research literature as studies show that school climate influences a number of student outcomes, including those specifically related to bullying and school violence (Astor & Meyer, 2001; Bradshaw et al., 2002; Nansel et al., 2001, & Swearer et al., 2006). Hoy & Sabo (1998) define school climate as "the relatively stable property of the school environment that is experienced by participants, affects their behavior, and is based on their collective perceptions of behavior in schools (p. 55). The construct of organizational health contextualizes school climate within a health metaphor and focuses on the well-being of the interpersonal relationships among students, teachers, and administrators in a school.

The conceptual framework of organizational health is grounded in both organizational (Miles, 1969) and social systems theory (Parsons, 1967; Parsons, Bales, & Shils, 1953). Miles'

(1969) theory of organizational health contends that healthy organizations survive by continuously developing positive coping capabilities. Miles (1969) specifies ten properties associated with the task needs, maintenance needs, and growth needs of a healthy organization. The task needs include a focus on goals, adequate communication, and optimal power equalization, whereas the maintenance needs involve effective resource utilization, a sense of cohesiveness, and a positive morale. The properties linked to the growth needs include a sense of innovation, autonomy, adaptation, and problem-solving capabilities. Miles (1969) viewed organizations as open social systems and posited that the presence or absence of these ten properties influence the overall health of any organization.

The perspective that all social systems must solve four basic problems (adaptation, goal attainment, integration, and latency) if they are to survive, grow, and develop put forth by Parsons et al., (1953) also contributes to the theoretical framework for organizational health. Parsons (1967) and Parsons, Bales, & Shils (1953) contend that healthy schools solve these problems by acquiring sufficient resources; adapting to their environments; setting and implementing goals; maintaining a cohesive system; and, by creating and maintaining a distinctive culture. In addition, Parsons (1967) posits that organizations, including schools, have three distinct levels of responsibility and control over these needs. The technical level is concerned with the mission of the school, namely, the execution and support of the teaching and learning process. The managerial level controls the internal administrative function of the organization. Within a school, this level recognizes the central role principals play in the organization and focuses on the principal's ability to develop teacher resources while also building commitment, trust, and loyalty. Finally, the institutional level connects an organization

to its broader social environment. For schools, the institutional level recognizes that teachers and administrators need legitimacy and support within the broader community.

Building on the work of Parsons and Miles, Hoy and colleagues (Hoy & Clover, 1986; Hoy & Feldman, 1987; Hoy, Tarter, & Kottkamp, 1991) further developed the framework for conceptualizing organizational health within schools. The technical, managerial, and institutional levels of control were maintained and six dimensions were developed to capture the basic needs of schools. A healthy school is defined as one in which the basic needs of the school are met while they cope successfully with outside demands and maintain a focus on teaching and learning (Hoy & Sabo, 1998). As stated by Hoy & Saba (1998), "in healthy schools, students, teachers, administrators, and the community work together cooperatively and constructively" (p. 56). The six dimensions of school health include: institutional integrity (institutional level): collegial leadership, principal influence, resource support (managerial level); and, morale, academic emphasis (technical level). Institutional integrity refers to a school's ability to cope with outside demands in a way that maintains the educational integrity of its programs. Collegial leadership is related to principal behavior and refers to aspects of both style and influence (i.e. supportive of teachers yet holding high expectations). Principal influence represents the principal's ability to influence the actions of superiors and get additional consideration. Resource support represents the availability of classroom supplies and instructional materials. Teacher affiliation represents how teachers feel about each other, their job, and their students, whereas academic emphasis represents the extent to which schools hold high academic standards.

The research on organizational health indicates that it is an important predictor of various

teacher and student outcomes. Hoy & Woolfolk (1993) conducted a study which examined the connection between general and personal teaching efficacy and organizational health. Correlation and regression analysis revealed that a health school climate was positively associated with teachers' efficacy beliefs. Specifically, the findings revealed that schools with a strong academic emphasis and strong principal leadership had teachers who believed they could influence student outcomes. Two dimensions of organizational health, institutional integrity and teacher morale, were also associated with more general efficacy beliefs (Hoy & Woolfolk, 1993). A study conducted by Hoy, Sabo, & Barnes (1996) found that organizational health also promoted faculty trust. Correlation analysis supported the hypothesis that higher ratings of organizational health were related to measures of faculty trust. A collegial principal leadership style was found to foster faculty trust in the principal whereas strong teacher affiliation was associated with trust in colleagues (Hoy, Sabo, & Barnes, 1996). Additionally, several studies have linked staff perceptions of organizational health with rates of absenteeism (Astor, Benbenishty, Zeira, & Vinokur, 2002), academic achievement (Gottfredson & Gottfredson, 1989; Roney, Coleman, & Schlichting, 2007), school adjustment (Esposito, 1999), and student satisfaction (Griffith, 2000).

CHAPTER 4

METHODOLOGY

Overview of the Study

This study examines the influence of individual and organizational characteristics on the likelihood of teachers' intervening in bullying situations. While previous research has shown that teachers can play a central role in the reduction of bullying and victimization, less is known about the factors which influence the likelihood that teachers will intervene in bullying situations. To date, the majority of studies which have been conducted in this area focus on individual-level factors associated with teacher interventions in bullying (Bradshaw, Sawyer & O'Brennan, 2007; Dedousis-Wallace & Shute, 2009; Kochenderfer-Ladd & Pelletier, 2008; Yoon, 2004; Yoon & Kerber, 2003). The current study expands on this work by examining not only teachers' individual characteristics but also teachers' perceptions and knowledge of organizational characteristics. The goal of this research is to further our understanding of these characteristics so that policy-makers and practitioners can develop and implement successful prevention and intervention strategies within our schools. A cross-sectional descriptive design provided the framework for exploring the research questions of interest.

Research Questions and Hypotheses

1. To what extent do teachers' beliefs about the perceived seriousness of the bullying situation influence their decision to intervene?

Hypothesis #1 – Teachers who have higher ratings of the perceived seriousness of the bullying vignettes will report a higher likelihood of intervention.

2. How does empathy impact the likelihood of teachers' intervening in bullying situations?

Hypothesis #2 – Teachers who report a higher degree of empathy with the victims in the bullying vignettes will report a higher likelihood of intervention.

3. How do ratings of self-efficacy impact the likelihood of teachers' intervening in bullying situations?

Hypothesis #3 – Teachers who have higher self-efficacy ratings will report a higher degree of intervention in the bullying vignettes.

4. How do ratings of school organizational health impact the likelihood of teachers' intervening in bullying situations?

Hypothesis #4 – Teachers who report higher ratings of overall school organizational health will report a higher likelihood of intervention in the bullying vignettes.

5. To what extent does awareness of bullying education programs and bullying prevention initiatives within schools influence the likelihood of teachers' intervening in bullying situations?

Hypothesis #5 – Teachers who work in schools with bullying education programs and have knowledge of these programs will report a higher likelihood of intervention in the bullying vignettes.

Hypothesis #6 – Teachers who work in schools with extensive bullying prevention initiatives and have knowledge of these initiatives will report a higher likelihood of intervention in the bullying vignettes.

6. To what extent does knowledge of school anti-bullying policies and procedures influence the likelihood of teachers' intervening in bullying situations?

Hypothesis #7 - Teachers who are aware of their district's anti-bullying policies and procedures will report a higher likelihood of intervention in the bullying vignettes.

7. To what extent does participation in training opportunities on bullying influence the likelihood of teachers' intervening in bullying situations?

Hypothesis #8 – Teachers who have attended training opportunities focused on bullying will report a higher likelihood of intervention in the bullying vignettes.

Hypothesis #9 - Teachers who have participated in more hours of training on bullying will report a higher likelihood of intervention in the bullying vignettes.

8. To what extent does class size influence the likelihood that teachers will intervene in bullying situations?

Hypothesis #10 – Teachers with smaller class sizes will report a higher likelihood of intervention in the bullying vignettes.

9. Which variables, individual-level or organizational-level, are the strongest predictors of the likelihood of teachers' intervening in bullying situations?

Hypothesis #11 – Teacher ratings of school organizational health will be the strongest predictor of the likelihood of intervention in the bullying vignettes.

Research Design

A cross-sectional descriptive design was utilized to address the research questions of interest. This design is appropriate when describing relationships at a fixed point in time (Polit & Beck, 2004) and provides a framework for examining the impact of individual characteristics and perceived organizational characteristics on the likelihood of teachers' intervening in bullying

situations. I selected a cross-sectional descriptive design, as this design allows for the examination of multiple outcomes (Mann, 2003).

While a mixed methods design provided both quantitative and qualitative data examining the factors which influence teacher interventions in bullying situations, the current study focuses on the findings from the quantitative data analysis. I included a few quotes from the qualitative interviews to enrich the discussion and findings but a full analysis of the qualitative data gathered in the survey and interviews was beyond the scope of this dissertation research. This researcher utilized an online survey to gather quantitative data from middle school teachers across Michigan. The survey included questions related to both individual and organizational characteristics. After the completion of the online survey, a subset of the teachers also participated in semi-structured qualitative interviews. These individual interviews focused on individual teachers' experiences intervening in bullying situations and explored the individual and organizational characteristics which played a role in their intervention decisions.

Sampling

This study utilized a convenience sample of school districts across the State of Michigan. Eligibility for participation in the study included middle schools with a fifth-sixth-seventh, sixth-seventh-eighth or seventh-eighth grade configuration. A focus on middle school teachers is important as research shows a temporary increase in bullying during early adolescence (Nansel et al, 2001; Swearer, Espelage, Siebecker, Kingsbury, & Bevins, 2006). Additional research recognizes the important developmental milestones young adolescents face during their transition to middle school (Nansel, Haynie, & Simons-Morton, 2003; Sweetland & Hoy, 2000). As stated by Nansel et al. (2003), the middle school years are characterized by "increased

academic demand, decreased personal attention in school, increased social stressors, and a shift from adult-focused to peer-focused relationships" (p. 46). The development of healthy social relationships represents one of the central tasks for middle school students, because peer relationships have the potential to either positively or negatively impact other areas of development. For example, a study conducted by Nansel et al. (2003) found that involvement in negative peer interactions, such as bullying, has a negative influence on middle school students' adjustment to school and their perceptions of school climate.

This researcher's personal contacts within each district facilitated recruiting. In five of the identified districts, I sent a letter to the Superintendents inquiring about their willingness to participate in the dissertation research study. A few weeks after this initial contact, I sent a follow-up email to Superintendents to inquire about their willingness to participate. If the Superintendent agreed to participate, I made follow-up contact (phone, email, and/or in-person) with the middle school principal to explain the purpose of the study and discuss study procedures. In another five of the districts, I made my initial contact with the building principal. I provided them with information about the study in my first email and then contacted them by phone and/or email to inquire about their interest in participating and to discuss study procedures. I secured letters outlining each district's willingness to participate in the study and submitted these to Wayne State University's Institutional Review Board (IRB).

I utilized G*Power version 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) to conduct an *a priori* power analysis and estimate the sample size needed for the study. I conducted a series of power analyses with a varying number of predictors expecting a medium effect size (.15) and an alpha level of α=.05. In the current study, the number of predictors used in the various models

ranged from three to seven. In order to achieve a power of .95, the following sample sizes were needed: 153 participants when using seven predictors; 146 participants when using six predictors; 138 participants when using five predictors; 129 participants when using four predictors; and, 119 participants when using three predictors. In the current study, 187 surveys were completed. Table 1 highlights additional information about the response rates in each of the participating districts.

Data Collection

After obtaining approval from the Institutional Review Board (IRB), I sent a one-time online confidential survey to middle school teachers in participating school districts via an email forwarded by their principals. This email contained information about the study, an invitation to participate, and a link to the survey. I utilized Qualtrics (2002) software for the online data collection in the study. The opening page of the survey included consent information, and participants consented to participate by completing the survey. The survey, which will be described in detail below, included the following measures: Bullying Attitudes Questionnaire, the Organizational Health Inventory (OHI-M), and the Teacher Interpersonal Self-Efficacy Scale (see Appendix A). The Bullying Attitudes Questionnaire utilizes six vignettes to explore perceived seriousness of the bullying situation, level of empathy, and likelihood of intervention. The Bullying Attitudes Questionnaire also incorporates a series of open-ended questions which explore teacher responses to both the students who were bullied and the students who bullied for each of the vignettes. In addition, the survey contained questions about demographics as well as questions about teachers' perceptions of organizational characteristics related to bullying policies, programs, and procedures. I asked principals to send two reminder emails after the

initial survey was sent in an effort to improve the response rate (Dillman, 2007; Manfreda, Bosnyak, Berzelak, Haas, & Vehovar, 2008). I included my contact information in the first email from the principal in case participants had any questions about the survey or survey procedures. In two schools, I attended staff meetings and was given time to administer the survey during these meetings. One district also gave time for teachers to complete the survey during a staff meeting; however, I was not present at that meeting. In the remaining districts, the principal sent the survey via email with no direct contact by this researcher.

I utilized a raffle for a $25.00 Target gift card as an incentive for participation. If participants completed the survey and wished to participate in the raffle, I asked them to provide their contact information by clicking on a link at the end of the survey. This link allowed them to provide their contact information without connecting this information to their individual survey responses. I also asked participants at the end of the survey if they were interested in participating in a follow-up individual interview. Again, participants provided their contact information by clicking on a link at the end of the survey which allowed them to provide information without connecting their name to individual survey responses. After obtaining IRB approval, I emailed teachers about their continued interest in completing an interview and secured an interview time and location. I completed 19 individual interviews which focused on both individual and organizational factors which impact teacher interventions in bullying situations (see Appendix B for interview guide). I conducted the interviews both in-person and over the phone. Prior to the day of the interview, I emailed consent information to participants. I also asked participants if they had any questions regarding consent prior to the start of the interview and audio recorded each interview. The interviews lasted approximately 30 to 45

minutes and teachers received a $20 Target gift card for participating in an individual interview.

Validity

Threats to the validity of the proposed study are possible, as the study is limited to examining characteristics which influence hypothetical intervention in bullying situations as evidenced by perceived seriousness of the situation, levels of empathy, reports of self-efficacy, perceived organizational health, and other organizational characteristics. There may be other aspects of both individual and organizational characteristics which were not captured by the questions and measures used in the current study. The inclusion of the qualitative individual interviews attempts to address this issue by asking a sample of teachers to identify other characteristics, not identified in the survey, which impact their intervention decisions. The study examines the impact of individual and perceived organizational characteristics on teachers in 10 middle schools across Michigan, and thus the results do not necessarily represent the experiences of other teachers in other schools.

Participating districts

Ten districts across Michigan participated in the study. The following information on participating school districts was obtained from the 2012 Michigan Education Directory, the Michigan Department of Education, and district websites.

District 1. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 1 is classified as a school district within a midsize suburban locale. Table 2, Table 3, and Table 4 provides additional information on district and building level characteristics. A review of the district website reveals the presence of a district bullying policy entitled, “Standards of Student Behavior”. This policy includes information on

the following: belief statement; standards and procedures; definitions; administrative guidelines; age-appropriate programming; reporting procedures; false accusations; and, policy posting.

District 2. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 2 is classified as a school district within a small city locale. See Table 2, Table 3, and Table 4 for additional information on district and building level characteristics. A review of the district website reveals the presences of a district bullying policy entitled, "Anti-Bullying". This policy includes information on prohibited conduct, reporting an incident, investigation, notice to parent/guardian, annual reports, responsible school official, posting/publication of the policy, education/task force development, and definitions. In addition, the district has information posted on an anti-bullying/anti-aggression campaign. This campaign consists of an anti-bullying introduction letter, a behavior rubric, behavioral expectations, and a student conflict and concern notification form.

District 3. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 3 is classified as a school district within a large suburb locale. See Table 2, Table 3, and Table 4 for additional information on district and building level characteristics. A review of the district website reveals the presence of a district bullying policy entitled, "Policy Prohibiting Bullying". This policy includes information on the following: definition; prohibition; and, reporting, notification, and investigation.

District 4. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 4 is classified as a school district within a rural fringe locale. See Table 2, Table 3, and Table 4 for additional information on district and building level characteristics. A review of the district website reveals the presence of a district bullying policy

entitled, "Anti-bullying Policy". This policy includes information on the following: prohibited conduct; retaliation/false accusation; reporting; investigation; note to parent/guardians; annual reports; responsible school official; posting/publication of policy; and, definitions.

District 5. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 5 is classified as a school district within a large suburb locale. See Table 2, Table 3, and Table 4 for additional information on district and building level characteristics. A review of the district website reveals the presence of a district bullying policy entitled, "Bullying and Other Aggressive Behavior Toward Students". This policy includes information on the following: notification; implementation; procedures; non-retaliation/false reports; and, definitions.

District 6. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 7 is classified as a school district within a large suburb locale. See Table 2, Table 3, and Table 4 for additional information on district and building level characteristics. A review of the district website did not reveal a district bullying policy. The school district recently consolidated with another district and former policy information is no longer available.

District 7. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 8 is classified as a school district within a small suburb locale. See Table 2, Table 3, and Table 4 for additional information on district and building level characteristics. A review of the district website reveals the presence of a district bullying policy entitled, "Bullying and Other Aggressive Behavior Toward Students". This policy includes information on the following: notification; implementation; procedures; non-

retaliation/false reports; prevention/training; and, definitions.

District 8. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 11 is classified as a school district within a large suburb locale. See Table 2, Table 3, and Table 4 for additional information on district and building level characteristics. A review of the district website reveals the presence of a district bullying policy entitled, "Bullying and Other Aggressive Behavior Toward Students". This policy includes information on the following: notification; implementation; procedures; non-retaliation/false reports; and, definitions.

District 9. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 12 is classified as a school district within a fringe town locale. See Table 2, Table 3, and Table 4 for additional information on district and building level characteristics. The district policy on bullying was not available on the website. The student code of conduct for the middle school was available and revealed a bullying policy. This policy includes information on definitions, disciplinary actions, and reporting procedures/responsibilities.

District 10. According to data available from the Center for Educational Performance and Information (www.michigan.gov), District 13 is classified as a school district within a fringe town locale. See Table 2, Table 3, and Table 4 for additional information on district and building level characteristics. A review of the district website reveals the presence of a district bullying policy entitled, "Bullying and Other Aggressive Behavior Toward Students". This policy includes information on the following: definitions; reporting procedure; investigation; retaliation; confidentiality; and, notification.

Study Variables

Teacher attitudes toward bullying

The Bullying Attitudes Questionnaire (Yoon, 2004) measures teacher attitudes toward different bullying behaviors. The Bullying Attitudes Questionnaire (Yoon, 2004) modifies the Bullying Attitude Questionnaires developed by Craig, Henderson, & Murphy (2000) to make the bullying less ambiguous and to limit the vignettes to only witnessed situations. For the current study, I slight modifications were made to the six vignettes in order to use language better suited toward middle school students/teachers (for example, changing the word "child" to "student") (see Appendix A). The vignettes include physical, verbal, social, and cyber bullying situations. The following is an example of one vignette:

> *During a project time you overhear Student A say to Student B, "If you don't let me copy your idea for this project, I'll make sure no one wants to hang out with you." This is not the first time you have heard Student A say this type of thing.*

The vignettes are consistent with the definition of bullying developed by Olweus (1993) in that they include a negative action, a repeated pattern of behavior, and an implied imbalance of power. There are a series of questions following each vignette which relate to the perceived seriousness of the bullying situation, empathy toward the victim, likelihood of intervention, and the type of intervention strategy utilized to address each situation. The question, "In your opinion, how serious is this situation?" measured the perceived seriousness of the situation. Responses ranged from not serious at all (1) to very serious (5). The statement, "I would be upset by Student A's behavior and feel sympathetic to Student B" assessed the degree of empathy toward the victim. Responses ranged from strongly disagree (1) to strongly agree (5). Teachers also indicated how likely they would be to intervene in each vignette. Responses ranged from

not at all likely (1) to very likely (5). For each vignette, teachers answered two open ended questions about the type of intervention strategy they would use with both the student who was bullied and the student who bullied.

Yoon (2004) examined the reliability and consistency of the scales contained in the Bullying Attitudes Questionnaire. She used Cronbach alpha scores to examine the internal reliability of the scales, whereas Spearman-Brown scores examined the internal consistency projected for the total 29 items. The Cronbach alpha for the perceived seriousness scale in Yoon's (2004) study was .70 and the Spearman-Brown was .92. The Cronbach alpha for the empathy scale in her study was .86 and the Spearman-Brown, .97 whereas the Cronbach alpha for the likelihood of intervention scale in her study was .77 and the Spearman-Brown was .94 (Yoon, 2004). Following the development of rating criteria, Yoon (2004) found that the responses to the open-ended questions regarding involvement yielded a Cronbach alpha coefficient of .67 and a Spearman-Brown of .91. Although the external validity of vignettes is often questioned, there is support for the use of vignettes in social research (Barter & Reynold, 1999; Schoenberg & Ravdal, 2000; Wilks, 2004). In fact, Poulou (2001) posits that vignettes are the most appropriate method for understanding teachers' responses to specific incidents.

This researcher also tested the reliability of the scales contained in the Bullying Attitudes Questionnaire (Yoon, 2004) for the current study using Cronbach's alpha. The Cronbach's alpha for the likelihood of intervention scale was .81. The Cronbach's alphas for the perceived seriousness scale and level of empathy scales were .78 and .90, respectively.

Efficacy

The Teacher Interpersonal Self-Efficacy Scale (Brouwers & Tomic, 2001) focuses on the

interpersonal domain of teacher functioning and measured teachers' self-efficacy in the current study. The scale looks specifically at three interpersonal activities of teachers, including: managing student behavior in the classroom; eliciting collegial support; and, eliciting principal support. Rather than examining general teacher functioning, the Teacher Interpersonal Self-efficacy Scale focuses both on teachers' interactions with others (students, colleagues, and administrators) and teachers' beliefs about their ability to perform certain tasks. There are 24 items in the scale, with 14 items related to classroom management, 5 items related to collegial support, and 5 items related to principal support. The following statements are examples of the items contained in the Teacher Interpersonal Self-efficacy Scale (items are rated on a 6-point Likert type scale and range from strongly disagree (1) to strongly agree (6) :

Perceived self-efficacy in classroom management - "I am able to respond adequately to defiant students."

Perceived self-efficacy to elicit support from colleagues - "I am confident that, if necessary, I can ask my colleagues for advice."

Perceived self-efficacy to elicit support from principals - "When necessary, I am able to bring up problems with principals."

Brouwers and Tomic (2001) examined the factorial validity of the Teacher Interpersonal Self-efficacy scale. Their analyses revealed an adequate fit for the three factor model, with items in the three subscales correlating with their respective factors. The factor parameter estimates for the perceived self-efficacy in classroom management ranged from .45 to .79. They deleted one item (item 10 - "I am not always able to execute several activities at once."), as it correlated poorly with this subscale. The factor parameter estimates for the perceived self-efficacy in

eliciting support from colleagues ranged from .70 to .87. The factor parameter estimates for the perceived self-efficacy in eliciting support from principals ranged from .87 to .90. An analysis of the intercorrelations among the subscale scores for the Teacher Interpersonal Self-efficacy scale found that the correlation between the perceived self-efficacy in classroom management subscale and the perceived self-efficacy in eliciting support from colleagues was .32; the correlation between the perceived self-efficacy in classroom management subscale and the perceived self-efficacy in eliciting support from principals was .32; and the correlation between the perceived self-efficacy in eliciting support from colleagues and the perceived self-efficacy in eliciting support from principals was .57. Brouwers and Tomic (2001) also examined the coefficient alphas and found that the scores on the subscales were internally consistent, with all coefficient alphas exceeding .90.

The reliability of the Interpersonal Self-Efficacy scale in the current study yielded a Cronbach alpha score of .913. The reliability of the three subscales produced a Cronbach alpha score of .845 for perceived self-efficacy in classroom management, a Cronbach alpha score of .865 for perceived self-efficacy for eliciting support from colleagues, and a Cronbach alpha score of .931 for perceived self-efficacy for eliciting support from principals.

Organizational health

The Organizational Health Inventory for Middle Schools (OHI-M) (Hoy & Sabo, 1998; Hoy & Tarter, 1997) measures how effectively the technical, managerial, and institutional needs of a school are met. The OHI-M measures school health by examining the degree to which these three levels are in harmony, meet the basic needs of the school, cope with outside demands, and focus on the mission of teaching and learning (Hoy & Sabo, 1998). The OHI-M addresses six

dimensions of school health to represent both the needs of social systems and the levels of control found in most organizations. The following statements are examples of items on the OHI-M measuring the six dimensions of school health (survey responses to the items range from rarely occurs to very frequently occurs):

Institutional integrity - "Teachers are protected from unreasonable community and parental demands."

Collegial leadership - "The principal explores all sides of topics and admits that other options exist."

Principal influence - "The principal is able to influence the actions of his or her superiors."

Resource support - "Extra materials are available if requested."

Teacher affiliation - "Teachers do favors for each other."

Academic emphasis - "Teachers in this school believe that their students have the ability to achieve academically."

The OHI-M contains 45 items which define the six dimensions of school health and offers a general index of organizational health. Subtests of the OHI-M yielded relatively high reliability scores for each of the dimensions of school health: Institutional integrity (.93), Collegial leadership (.94), Principal influence (.94), Resource support (.93), Teacher affiliation (.94), and Academic emphasis (.94) (Hoy & Sabo, 1998). Hoy & Sabo (1998) and Hoy & Tarter (1997) established the construct validity of the OHI-M through several pilot studies, field testing, and through the stability of the factor structure in several comprehensive studies using factor-analytic techniques.

For the current study, I also examined the reliability for the scale as a whole and the six subscales in the OHI-M. The Cronbach alpha for the entire scale was .92. The reliability scores for the six subscales in the current study were not as high as those reported by Hoy & Sabo (1998). The scores in the current study are as follows: Institutional integrity (.79); Collegial leadership (.89); Principal influence (.74); Resource support (.89); Teacher affiliation (.79); and, Academic emphasis (.76).

Organizational characteristics

The organizational characteristics examined in the study include: teacher participation in training opportunities related to bullying, including the number of hours spent in training and the source of the training; knowledge of an education program for students on preventing, identifying, responding to, and reporting incidents of bullying and cyber bullying; knowledge of an education program for parents on preventing, identifying, responding to, and reporting incidents of bullying and cyber bullying; knowledge of reporting procedures for incidents of bullying; knowledge of a bullying prevention task force or initiative; and, class size.

This researcher took the conceptual definitions for the training opportunities, educational programs, reporting procedures, and bullying prevention initiatives from Public Act No. 241 (State of Michigan, 2011), the recent anti-bullying legislation passed in the State of Michigan.

Training opportunities. Teacher training refers to annual training for administrators, school employees, and volunteers who have significant contact with pupils about prevention, identifying, responding to, and reporting incidents of bullying. Three questions assessed the presence or absence of training opportunities. The first question asked if participants have attended training on preventing, identifying, responding to, or reporting incidents of bullying

during the current or past school year. If participants indicated they had attended a training, the second question asked them to indicate if they received the training in an undergraduate program, a graduate program, a district/school sponsored training, an out of district conference/workshop, or some other training opportunity. The third question asked participants to indicate the amount of training they received in terms of number of hours spent in the training.

Bullying education program. A bullying educational program is defined as a program for students and/or parents on preventing, identifying, responding to, and reporting incidents of bullying and cyber bullying. Two questions measured teachers' awareness of the presence or absence of an education program. The first question asked teachers to indicate if their school has an education program for students on preventing, identifying, responding to, and reporting incidents of bullying and cyber bullying. The second question asked teachers to indicate if their school has an education program for parents on preventing, identifying, responding to, and reporting incidents of bullying and cyber bullying.

Reporting procedure. Reporting procedure is defined as a procedure for reporting an act of bullying. One question assessed teachers' awareness of the presence or absence of a reporting procedure by asking participants to indicate if their school has a procedure in place for reporting an act of bullying.

Bullying prevention initiatives. A bullying prevention initiative is defined as a task force, program, teen court, or other initiative involving school staff, pupils, school clubs, or other student groups, administrators, volunteers, parents, law enforcement, community members, and other stakeholders. One question asked participants to indicate if they are aware of a bullying prevention initiative such as a task force, program, teen court, or other initiative which involves

school staff, pupils, school clubs, or other student groups, administrators, volunteers, parents, law enforcement, community members, and other stakeholders in their school district.

Class size. Class size is defined as the number of students in a classroom. One question asked participants to indicate the average number of students in their classrooms at the time of the survey.

Demographic Variables

The demographic variables included in the survey are gender, age, race, educational level, years of teaching experience, and grade level taught in the current school year.

Gender. Gender is defined one's self-identification as male or female.

Age. One question asked participants to identify their age at the time of the survey.

Race. Race is defined as the ethnic background of participants. One question asked participants to identify their race as, American Indian or Alaska Native, Asian or Pacific Islander, Hispanic, Black, or White.

Education level. Education level is defined as the level of schooling participants have completed at the time of the survey. One question asked participants to indicate if they have a Bachelor's degree, Master's degree, Education Specialist Degree, PhD, or other degree.

Years of teaching experience. Years of teaching experience is defined as the number of years working in the field of education up to and including the current school year. One question asked participants to indicate their years of experience, both full and part-time, in a public or private school.

Grade level. Grade level is defined as the grade participants teach at the time of the survey. One question asked participants to identify the grade they taught in the current (2012-2013)

school year. Choices included: sixth, seventh, eighth, or other.

Social Desirability Scale

The Social Desirability Scale -17 (SDS-17) (Stöber, 2001) examines whether participant responses are biased by perceived desirable responding. Following the criteria used in the Marlowe-Crowne Scale (1960), Stöber (2001) constructed an updated scale for measuring social desirability. There are 17 items in the scale. The following statements are examples of the items contained in the Social Desirability Scale -17 (responses are true/false):

"I sometimes litter."

"I take out my bad moods on others now and then."

"I always eat a healthy diet."

Stöber (2001) examined the validity and reliability of the SDS-17 and his analysis revealed that when compared with other measures of social desirability, the SDS-17 showed correlations between .52 and .85. Items on the SDS-17 correlated with the Marlowe-Crowne Scale (.74) and showed a high degree of sensitivity toward social-desirability provoking instructions (Stöber, 2001). Reliability analysis of the Social Desirability Scale in the current study yielded a Crohbach's Alpha of .768 for the 16 items included in the scale.

Data Analysis Plan

I conducted pre-analysis data screening and ran frequency distributions and descriptive statistics for all variables to assess the accuracy of the data, the quality of the data, and to identify missing values and outliers. I also examined assumptions of normality, linearity, and homoscedasticity prior to my data analysis.

I conducted correlational analyses to assess the relationships among the individual and

organizational predictor variables and teachers' responses to the bullying situations. A series of bivariate analyses also examined if the likelihood of teachers' intervening in bullying situations differs among various individual and organizational variables. Finally, a series of multiple regression analyses examined whether individual and organizational variables predict the likelihood of teachers' intervening in bullying situations.

Despite the fact that the data gathered in this study assess individual and organizational characteristics, I used regression analysis rather than hierarchical linear modeling to analyze the data. Regression analysis is appropriate because the measures used in the study represent individual teachers' perceptions of efficacy, perceived seriousness, empathy, and organizational health, thus representing characteristics of individual teachers rather than schools. Given the fact that the measures captured individual perceptions of organizational-level variables, it is also likely that the majority of variance in the dependent variable would be within rather than between schools. I also selected regression analysis because of the small number of school districts which participated in the study. The literature on multilevel analysis discusses the importance of sample size and the accuracy of estimates and their standard errors (Hox, 1998; Raudenbush, 2004). According to Hox (1998), the sample size recommended for multilevel modeling is at least 30 groups with at least 30 individuals per group. Based on the number of schools participating in this study (10), regression analysis represents a more appropriate analytic technique.

CHAPTER 5

RESULTS

Participant Demographics

This researcher created and distributed an on-line survey examining teacher interventions in bullying situations to middle school teachers in ten school districts throughout Michigan (see Appendix A). Females comprised the majority of study participants (76%) with males representing 23% of the study population. Ninety-five percent of the participants identified their race as Caucasian/White, with one percent or less in each of the other race categories (African American, Hispanic, Asian, or American Indian/Alaska Native). The majority of participants reported their highest degree as a Master's degree (70%) while 18% reported having a Bachelor's degree, 7% reported having an Educational Specialist degree, and 3% reported having some other degree. The average age of participants was 42 years old (SD=11.2), with participants reporting an average of 17 years teaching experience (SD=9.8). Thirty-nine percent of participants reported teaching some combination of fifth through eighth grade, while 26% reported teaching eighth grade, 23% seventh grade, and 10% sixth grade. While the study participants are not representative of the greater population in the State of Michigan, a review of the Fall 2012 Registry of Educational Personnel Summary Report reveals that participant demographics in the current study are consistent with data on teacher demographics in Michigan (www.michigan.gov/cepi).

Data Screening

Following data collection, this researcher screened the data to assess the accuracy and quality of the data. I utilized version 21 of the Statistical Pack for the Social Sciences (SPSS) for

all data analyses. Initial analysis revealed a significant amount of missing data across a majority of variables. Further examination of the data in Qualtrics revealed that the merged SPSS data file included individuals who started but did not complete the survey. The number of respondents who started the survey in Qualtrics was 230 while the number who completed it was 187. In order to address this issue, I initially examined cases where the respondent spent less than 5 minutes or more than an hour on the survey. I individually examined each of these cases in Qualtrics as well as in SPSS and deleted 38 cases, as it was evident that the respondents did not complete the survey. Following the deletion of these cases, I again examined the data in both Qualtrics and SPSS and sixteen more cases had a significant amount of missing data. I further examined the data on a case by case basis in Qualtrics and found that 16 cases had multiple sections of their survey where the statement, "this question was not displayed to the respondent" appeared. I deleted these 16 cases, as the missing data in each of these surveys was significant and appeared to be related to an error in survey delivery rather than the respondent choosing to not answer the questions. I examined the cases where this error message occurred to determine if there was a pattern to this error message. No pattern emerged, as the cases with error messages were equally distributed across the various districts. The final number of cases included in the analysis is 176.

After addressing the issues related to survey completion, I re-examined the missing data. The percentage of missing data improved, with the majority of variables containing less than five percent missing data. In subsequent analyses, this researcher used the default SPSS option of Listwise Deletion of Cases for these variables. Three variables had more than 5% but less than 15% missing data. The subscale for Institutional Integrity contained 9.1% missing data while the

subscale for Principal Influence had 11.9% missing data. The variable class size had fifteen percent missing data. I employed a mean substitution for these variables, as recommended by Mertler and Vannatta (2005). The full scale for Organizational Health contained a significant amount of missing data (21.6 %). To address this issue, I re-constructed the Organizational Health scale using mean scores rather than a straight summing of the individual items. I calculated the means for those cases where at least 35 of the 45 items were observed (cases that contained 22% or less missing data). I then created an overall scale score by multiplying these means by the total number of items in the scale.

Once I addressed the missing data issues, I began data screening with all the variables. I ran frequencies on all variables to check for the appropriateness of the range of values, coding errors, and extreme or unusual bifurcations. The categorical variables, gender and race, have a significant split between categories; however, this split is consistent with other statistics on teacher characteristics (see www.census.gov) and thus are included in the current study. All scores for the scale variables are within the range of possible scale scores.

I also screened the data to examine outliers and to determine if the data met the assumptions of the planned statistical procedures. I utilized several strategies to detect outliers including an examination of the box plots, stem and leaf plots, and z-scores. According to Mertler and Vannatta (2005) for a large sample (n=>100), z-scores which lie within 4 standard deviations of the mean can be used to identify outliers. I used this guideline in the current analysis. The z-scores on both the Level of Empathy and Likelihood of Intervention subscales had a small number of values outside of the +/-4.0 range. Because the number of these outliers was small, I altered the values in each of the identified cases to a value within the extreme tail of

the accepted distribution. I altered three scores in the Level of Empathy subscale and one score in the Likelihood of Intervention subscale. I tested assumptions of normality by examining means, standard deviations, and skewness and kurtosis values. Skewness and kurtosis values were close to the acceptable of range of +/- 1.0 and thus I did not transform any variables. I examined scatterplots in order to assess assumptions of linearity and ran bivariate correlations to assess issues of multicollinearity. I did not note any issues with linearity or homoscedecticity.

Univariate Distributions of Independent and Dependent Variables

Perceived seriousness (IV)

The Bullying Attitudes Questionnaire (Yoon, 2004) measured the perceived seriousness of the bullying situation as well as other dimensions (see Table 7). Following each of the six bullying vignettes, participants responded to the following, "In your opinion, how serious is this situation?". Response choices included (1) not at all serious, (2) not very serious, (3) moderately serious, (4) serious, and (5) very serious. Scores for the perceived seriousness of the bullying situation varied slightly across vignettes, with higher scores (possible scores ranged from 1 to 5) indicating a greater belief in the seriousness of the situation. The mean scores for each vignette are as follows: vignette one (indirect verbal bullying) (M = 4.68, SD = .516); vignette two (direct physical bullying) (M = 4.76, SD = .467); vignette three (indirect social exclusion) (M = 4.02, SD = .773); vignette four (direct social exclusion) (M = 3.99, SD = .904); vignette five (direct verbal bullying) (M = 4.75, SD = .559); and, vignette six (direct physical bullying) (M = 4.16, SD = .801). I created a perceived seriousness scale variable by summing the responses to this question across all six vignettes with possible scores ranging from 6 to 30 (see Table 6). A higher scale score indicated a greater belief in the perceived seriousness of the bullying situation.

The mean for the perceived seriousness scale variable in the current study was 26.28 (SD = 2.96) with participant scores ranging from 17 to 30.

Empathy (IV)

The Bullying Attitudes Questionnaire (Yoon, 2004) also measured participants' level of empathy toward the student being bullied (see Table 8). Participants responded to this statement following each of the six bullying vignettes, "I would be upset by Student A's behavior and feel sympathetic to Student B". The range of values included: (1) strongly disagree, (2) disagree, (3) neither disagree or agree, (4) agree, and (5) strongly agree. Level of empathy scores varied slightly across vignettes. Possible scores ranged from 1 to 5 with higher scores indicating a greater degree of empathy toward the student being bullied. The mean scores for each vignette are as follows: vignette one (indirect verbal bullying) (M = 4.52, SD = .746); vignette two (direct physical bullying) (M = 4.54, SD = .721); vignette three (indirect social exclusion) (M = 4.29, SD = .716); vignette four (direct social exclusion) (M = 4.23, SD = .731); vignette five (direct verbal bullying) (M = 4.57, SD = .666); and, vignette six (direct physical bullying) (M = 4.28, SD = .697). I created a scale variable measuring the level of empathy across all six vignettes. Possible scale scores ranged from 6 to 30, with a higher scale score representing a higher degree of empathy toward the student being bullied. In the current study, participants had a mean scale score of 26.20 (SD=3.55), with scores ranging from 16 to 30.

Likelihood of intervention (DV)

The Bullying Attitudes Questionnaire (Yoon, 2004) measured the likelihood of participants intervening in the bullying situation by asking them, "How likely are you to intervene in this situation?" following each of the six vignettes (see Table 9). Response

categories included: (1) not at all likely, (2) not very likely, (3) somewhat likely, (4) likely, and (5) very likely. Likelihood of intervention scores varied slightly across vignettes with possible scores ranging from 1 to 5. The mean scores for each vignette are as follows: vignette one (indirect verbal bullying) (M = 4.82, SD = .482); vignette two (direct physical bullying) (M = 4.88, SD = .346); vignette three (indirect social exclusion) (M = 4.43, SD = .692); vignette four (direct social exclusion) (M = 4.38, SD = .756); vignette five (direct verbal bullying) (M = 4.86, SD = .383); and, vignette six (direct physical bullying) (M = 4.52, SD = .679). I also created a likelihood of intervention scale variable by summing the responses following each vignette. Possible scores for the likelihood of intervention scale variable range from 6 to 30, with a higher scale score indicating a greater likelihood of intervention in the bullying vignettes. Participants in the current study had a mean scale score of 27.85 (SD=2.45), with minimum and maximum scores of 19 and 30.

Self-efficacy (IV)

The Teacher Interpersonal Self-Efficacy Scale (Brouwers & Tomic, 2001) measured self-efficacy by asking participants to respond to a series of statements about their role as a teacher (see Table 6). Participants indicated the extent to which they agreed or disagreed with each of the 24 statements. Response categories included: (1) strongly disagree, (2) disagree, (3) somewhat disagree, (4) somewhat agree, (5) agree, and (6) strongly agree. I created a full scale self-efficacy score by summing all the items in the measure, with some items requiring reverse coding prior to the creation of the scale. The possible scores for the full scale ranged from 24 to 144, with higher scores indicating a higher degree of self-efficacy beliefs. The mean self-efficacy scale score for participants in the current study was 122.46 (SD=12.63) with scores

ranging from a minimum of 76 to a maximum of 144.

Organizational health (IV)

The Organizational Health Inventory for Middle Schools (OHI-M) (Hoy & Sabo, 1998; Hoy & Tarter, 1997) measured participants' perceptions of school health (see Table 6). Participants responded to 45 statements pertaining to six dimensions of school health and indicated the extent to which the statements characterized their school. Response categories included: rarely occurs (1); sometimes occurs (2); often occurs (3); and, very frequently occurs (4). The range of possible full scale scores falls between 45 and 180, with higher scale scores indicating higher ratings of overall school health. Given the large amount of missing data in the original scale variable, I re-constructed the scale using mean scores and utilized this new scale variable in all subsequent data analyses. Participants in the current study had a mean scale score of 134.62 (SD=15.58), with scores ranging from 93 to 172.

Class size (IV)

Respondents reported an average class size of 27.32 (SD = 6.12) with class sizes ranging from 5 to 42 students.

Policies and programs (IV)

In order to assess the presence of policies and programs related to bullying in each school, participants responded to a series of yes/no/don't know questions (see Table 10). The questions related to programming asked, "does your school have an education program for students on preventing, identifying, responding to, and reporting incidents of bullying and cyber bullying?" and "does your school have an education program for parents on preventing, identifying, responding to, and reporting incidents of bullying and cyber bullying?" Sixty-seven

percent of participants reported that their school has a program in place for students, and 38% reported a program for parents. Thirteen percent reported that their school does not have a program for students, and 17% report that their school has no program for parents. Twenty percent of participants did not know about the presence of a program for students, while 44% did not know if such a program was available to the parents in their school.

Seventy-nine percent of participants indicated that their school has a procedure in place for reporting incidents of bullying. Five percent reported that their school has no reporting procedure in place, and 15% reported that they do not know if their school has a reporting procedure for incidents of bullying. Participants also responded to a question about the presence of a bullying prevention initiative at their school. Forty-eight percent reported that their school has some type of bullying prevention initiative, while 19% said their school has no prevention initiative, and 32% did not know if their school has such an initiative.

A series of questions examined participant involvement in training related to bullying. Sixty-four percent of participants indicated they have participated in at least one training, while 36% indicated that they have not participated in any training related to bullying. The majority of participants reported receiving their training at a district or school sponsored training (48%) or at an out of district conference/workshop (9%). Only 5% of participants reported receiving their training related to bullying in their undergraduate (1%) or graduate (4%) programs. Participants reported an average of 6 hours (SD=7.04) spent in training related to bullying.

Bivariate and Multivariate Analyses

The findings from the bivariate and multivariate analyses demonstrate mixed support of the study's hypotheses. In the current study, the hypotheses related to individual teacher

characteristics were supported, while the majority of those pertaining to the perceived organizational characteristics were not. A brief review of the hypotheses and findings are presented below followed by a more detailed description of the bivariate and multivariate analyses.

Hypothesis #1

My first hypothesis states that teachers who have higher ratings of the perceived seriousness of the bullying vignettes will report a higher likelihood of intervention. Multivariate analysis not only supports this hypothesis but also reveals that perceived seriousness is the strongest predictor of likelihood of intervention in the current study.

Hypothesis #2

The second hypothesis states that teachers who report a higher degree of empathy with the victims in the bullying vignettes will report a higher likelihood of intervention. Multivariate analysis also supports this hypothesis and reveals that teachers' level of empathy consistently predicts likelihood of intervention in the current study.

Hypothesis #3

The third hypothesis states that teachers who have higher self-efficacy ratings will report a higher degree of intervention in the bullying vignettes. Multivariate analysis reveals that this hypothesis was only supported for vignette five. This hypothesis was not supported in the multivariate analysis when looking at likelihood of intervention across all vignettes or for vignettes one, two, three, four, and six.

Hypothesis #4

The fourth hypothesis states that teachers who have higher ratings of overall school

organizational health will report a higher likelihood of intervention in the bullying vignettes. The findings from the multivariate analysis do not support this hypothesis. In fact, school organizational health does not significantly correlate with teachers' likelihood of intervention when looking across vignettes or vignette by vignette.

Hypothesis #5

The fifth hypothesis states that teachers who work in schools with bullying education programs and have knowledge of these programs will report a higher likelihood of intervention in the bullying vignettes. This hypothesis was not supported in the multivariate analysis, although results of the bivariate analyses reveal that having a bullying education program for students is significantly correlated with likelihood of intervention when looking across all vignettes as well as in vignette four.

Hypothesis #6

The sixth hypothesis states that teachers who work in schools with broader bullying prevention initiatives and have knowledge of these initiatives will report a higher likelihood of intervention in the bullying vignettes. Multivariate analysis did not support this hypothesis; however, bivariate analysis reveals that having a prevention initiative was significantly correlated with likelihood of intervention in vignette six.

Hypothesis #7

The seventh hypothesis states that teachers who are aware of their district's anti-bullying policies and procedures will report a higher likelihood of intervention in the bullying vignettes. This hypothesis was not supported in the multivariate analysis. Bivariate analysis reveals that awareness of reporting procedures is significantly correlated with likelihood of intervention

when looking across all vignettes as well as for vignettes three, four, and six.

Hypothesis #8

The eighth hypothesis states that teachers who have attended training opportunities focused on bullying will report a higher likelihood of intervention in the bullying vignettes. In the current study, multivariate analysis shows that this hypothesis is supported only in vignette three.

Hypothesis #9

The ninth hypothesis states that teachers who have participated in more hours of training on bullying will report a higher likelihood of intervention in the bullying vignettes. This hypothesis was not supported in any of the analyses.

Hypothesis #10

The tenth hypothesis states that teachers with smaller class sizes will report a higher likelihood of intervention in the bullying vignettes. This hypothesis was only supported in the multivariate analysis for vignette three.

Hypothesis #11

The final hypothesis states that teacher ratings of school organizational health will be the strongest predictor of the likelihood of intervention in the bullying vignettes. This hypothesis was not supported in the current study. In fact, teacher ratings of organizational health were not significantly correlated with teachers' reported likelihood of intervention when looking across all vignettes or vignette by vignette.

Bivariate Analyses

I conducted a series of bivariate analyses to assess the relationship between both

individual and organizational predictor variables and teachers' likelihood of intervening in the bullying vignettes. I utilized two strategies for examining these relationships. In my first series of analyses, I used the scale variables for perceived seriousness of the bullying situation, level of empathy toward the student being bullied, and likelihood of intervention. These scales represent a measure of each of these variables across all six vignettes. I then conducted another series of analyses which examined the relationship between the predictor variables and the likelihood of intervention vignette by vignette. Although my research questions did not call for an examination of the data vignette by vignette, I thought it was important to conduct these two sets of analyses in order to explore differences in the likelihood of intervention based on the different bullying situations. The results of the bivariate analyses also informed the inclusion/exclusion of the variables in the final regression models.

Individual level characteristics, findings across all vignettes

I ran a series of Pearson correlations to examine the relationship between the variables measuring individual level characteristics and the likelihood of teachers' intervening in the bullying vignettes. Perceived seriousness of the bullying situation, level of empathy toward the student being bullied, and self-efficacy belief are all significantly correlated with the likelihood of intervention scale variable. These results are presented in Table 10. The correlation for perceived seriousness was statistically significant at an alpha level of .01, $r = .669$, $p<.000$, indicating a strong direct linear relationship between the level of seriousness perceived by the teacher and the likelihood of intervention in the bullying vignettes ($eta^2=0.45$). The level of empathy teachers felt toward the student being bullied also significantly correlated with the likelihood of intervention scale variable. This correlation was statistically significant at an alpha

level of .01, r = .440, p<.000, indicating a moderate direct linear relationship (eta²=0.19). Teachers' overall reported level of self-efficacy also represented a statistically significant correlation with the likelihood of intervention scale variable at an alpha level of .01, r = .244, p<.002. However, this correlation had the weakest relationship between individual level characteristics and likelihood of intervention with an eta² value of 0.06.

Individual level characteristics, vignette by vignette

I ran a series of Pearson correlations to examine the relationship between the variables measuring individual level characteristics and the likelihood of teachers' intervening for each of the bullying vignettes (see Table 11). The situation presented in vignette one represents indirect verbal bullying, whereas vignette two represents direct physical bullying, vignette three represents indirect social exclusion, vignette four represents direct social exclusion, vignette five represents direct verbal bullying, and vignette six represents direct physical bullying (Yoon & Kerber, 2003). Perceived seriousness of the bullying situation and level of empathy toward the student being bullied were both significantly correlated with the likelihood of intervention in each of the vignettes (see Tables 7-12). In each of the vignettes, the correlation for perceived seriousness was statistically significant at an alpha level of .001, p<.000, indicating a strong direct linear relationships between the level of seriousness perceived by the teacher and the likelihood of intervention for each of the bullying vignettes. The level of empathy teachers felt toward the student being bullied also significantly correlated with the likelihood of intervention scale variable in each of the vignettes. This correlation was statistically significant at an alpha level of .001, p<.000, indicating a strong direct linear relationship. The correlation between teachers' overall reported level of self-efficacy and likelihood of intervention was statistically

significant in vignette one (indirect verbal bullying) (r = .198, p<.01), four (direct social exclusion) (r = .165, p<.05), five (direct verbal bullying) (r = .296, p<.001), and six (direct physical bullying) (r = .241, p<.01).

Perceived organizational characteristics, findings across all vignettes

I utilized both the Pearson correlation and Independent groups *t* tests to examine the relationship between the variables related to perceived organizational characteristics and the reported likelihood of intervention across all vignettes. The results of the Pearson correlations are presented in Table 12 and the results of the Independent groups *t* tests are presented in Table 13.

Respondents' overall rating of organizational health was not statistically correlated with the likelihood of intervention variable (r = .035, p<.656). In addition, respondents' likelihood of intervention was not statistically correlated with any of the six subscales for organizational health: institutional integrity (r = -.128, p<.111); collegial leadership (r = .122, p<.122); principal influence (r = .056, p<.499); resource support (r = -.020, p<.799); teacher affiliation (r = .061, p<.439); or, academic emphasis (r = .000, p<.996). I also examined class size using a Pearson correlation and found no significant relationship with the likelihood of intervention scale variable (r = -.106, p<.168). These results are presented in Table 15.

I conducted a series of independent groups *t* tests to examine the relationship between several organizational characteristics and teachers' likelihood of intervening in the bullying vignettes (see Table 14). The questions measuring these organizational characteristics asked participants to indicate a response of "yes", "no", or "don't know". Given the small number of responses in some of the categories, these variables were recoded to represent two answer

choices, yes or no/don't know. The first independent groups *t* test compared the mean likelihood of intervention in the bullying situations for respondents who reported having a bullying education program for students and those who reported they did not have or did not know about a bullying education program for students. This test was found to be statistically significant at an alpha level of .05, t (166) = 2.53, $p < .012$, indicating that there is a significant difference between the likelihood of intervention for respondents who have a bullying education program for students at their school and those respondents who don't have or are not aware of a bullying program for students. The strength of the relationship between having an education program for students and the likelihood of intervention, as indexed by eta², was 0.04 indicating a weak relationship between the variables. The 95% confidence interval for the mean difference was .222 to 1.79.

The second independent groups *t* test compared the mean likelihood of intervention in the bullying situations for respondents who reported having reporting procedures for incidents of bullying and those who reported they did not have or did not know about reporting procedures for incidents of bullying. Results showed a statistically significant difference at an alpha level of .05, t (166) = 2.59, $p < .010$), indicating that a difference exists between the likelihood of intervention for respondents who are aware of reporting procedures for incidents of bullying and those who are not. The strength of the relationship between reporting procedures and the likelihood of intervention, as indexed by eta², was 0.04 indicating a weak relationship between the variables. The 95% confidence interval for the mean difference was .280 to 2.07. Respondents who reported having a bullying education program for parents and those who reported having a bullying prevention initiative at school were not significantly different from

respondents who did not have or were not aware of these programs and initiatives as it relates to the likelihood of their intervention in the bullying vignettes (respectively, t (166) = .407, p < .685 and t (167) = -.745, p < .457). Additionally, I did not find a statistically significant difference in the likelihood of intervention (t (167) = 1.27, p < .207) for respondents who participated in training related to bullying and those who did not.

Perceived organizational characteristics, vignette by vignette

I also utilized both the Pearson correlation and Independent groups t test to examine the relationship between the variables related to perceived organizational characteristics and the reported likelihood of intervention vignette by vignette. Two of the organizational level variables, organizational health and knowledge of a bullying education program for parents, were not statistically correlated with the likelihood of intervention in any of the six vignettes (see Table 15). Furthermore, there were no statistically significant correlations between the organizational level variables and likelihood of intervention in vignettes one (indirect verbal bullying), two (direct physical bullying), and five (direct verbal bullying) (see Tables 16, 17, and 20).

The correlations between the other organizational level variables and the likelihood of intervention varied with each vignette. In vignette three (indirect social exclusion), there were three significant organizational level variables (see Table 18). First, results showed a statistically significant difference (t (171) = 1.96, p < .051) between the likelihood of intervention for respondents who are aware of reporting procedures for incidents of bullying and those who are not. The strength of the relationship between reporting procedures and the likelihood of intervention, as indexed by eta², was 0.02 indicating a weak relationship between the variables.

The 95% confidence interval for the mean difference was -.001 to .506. Class size also showed a significant correlation with likelihood of intervention in vignette three (indirect social exclusion). The correlation for class size was statistically significant at an alpha level of .05, r = -.171, p<.024, indicating a weak relationship between class size and the likelihood of intervention in this bullying vignette (eta²=0.03). Additionally in vignette three (indirect social exclusion), there was a statistically significant difference in the likelihood of intervention (t (172) = 2.12, p < .035) for respondents who participated in training related to bullying and those who did not. The strength of the relationship between reporting procedures and the likelihood of intervention, as indexed by eta², was 0.03 indicating a weak relationship between the variables. The 95% confidence interval for the mean difference was .016 to .440.

In vignette four (direct social exclusion), results showed a statistically significant difference (t (168) = 2.19, p < .030) between the likelihood of intervention for respondents who are aware of reporting procedures for incidents of bullying and those who are not (see Table 19). The strength of this relationship, as indexed by eta², was 0.03 indicating a weak relationship between the variables. The 95% confidence interval for the mean difference was .031 to .598. There was also a significant difference (t (168) = 2.30, p < .022) in the mean likelihood of intervention in the bullying situations for respondents who reported having a bullying education program for students and those who reported they did not have or did not know about a bullying education program for students in vignette four. The strength of this relationship, as indexed by eta², was 0.03 indicating a weak relationship between the variables. The 95% confidence interval for the mean difference was .041 to .536.

In vignette six (direct physical bullying), results showed a statistically significant

difference in likelihood of intervention (t (169) = 2.52, p < .013) for respondents who are aware of reporting procedures for incidents of bullying and those who are not (Table 21). The strength of the relationship between reporting procedures and the likelihood of intervention, as indexed by eta², was 0.04 indicating a weak relationship between the variables. The 95% confidence interval for the mean difference was .069 to .572. There was also a significant difference (t (170) = -2.00, p < .047) in the mean likelihood of intervention in the bullying situations for respondents who reported having a bullying prevention initiative in their school and those who reported they did not have or did not know about a bullying prevention initiative in vignette six (direct physical bullying). The strength of this relationship, as indexed by eta², was 0.02 indicating a weak relationship between the variables. The 95% confidence interval for the mean difference was -.415 to -.004.

Multivariate Analyses

I conducted a series of multivariate analyses to examine the extent to which the independent variables predicted the likelihood of teachers' intervening in bullying situations. As with the bivariate analyses, I performed two series of regression analyses. The first examined likelihood of intervention across all the vignettes while the second explored the predictability of the independent variables vignette by vignette. I excluded the majority of independent variables related to organizational characteristics from most of the analyses in both series of regression models, because the bivariate analyses indicated a non-significant relationship between teachers' reported likelihood of intervention and these variables. I also included two demographic variables (age and years of teaching experience) in the majority of the regression models for both series of analyses. Although my research questions did not specifically examine the impact of

demographic variables on the likelihood of intervention, I thought it was important to examine if these variables played a role in predicting teachers' intervention. I utilized age and years of teaching experience as these were the only two demographic variables significantly correlated with the likelihood of intervention.

I conducted multivariate data screening prior to the creation of the regression model. I began by examining missing data. The variable years of teaching experience had 7.4% missing data and the variable age had 10.8% missing data so a mean substitution was employed for both of these variables. All of the other variables had less than 5% missing values for each variable, so I used the default SPSS option of listwise deletion of cases in my subsequent analyses. I calculated Mahalanobis distance to check for outliers and extreme values. I deleted one case because the Mahalanobis distance values (27.91) exceeded the chi square critical value at $p <$ .001 of 26.12. I created a scatterplot matrix of the independent and dependent variables to examine assumptions of normality and linearity. The scatter plots approximated elliptical shapes, so no additional transformations were made. I assessed multivariate homogeneity of variance-covariance by creating a residual plot using regression. One case had a standardized residual value (-3.50) greater than +/- 3, so this case was deleted.

Regression analyses across all vignettes

I conducted a hierarchical multiple regression analysis to examine the influence of the predictor variables on the likelihood of teachers' intervening in bullying situations. I chose hierarchical multiple regression in order to examine the influence of the predictor variables in a sequential way. As Petrocelli (2003) explains, hierarchical multiple regression is a theory driven analysis which allows researchers to determine if the variables entered later in the analysis

account for a change in variance above and beyond that of the variables entered earlier. Thus, the focus of a hierarchical multiple regression analysis is on the change in predictability. There are several factors which influenced the order in which I entered variables into my model. I entered the demographic variables (age and years of teaching experience) in the first block based on the guidelines offered by Cohen and Cohen (1983). The research questions guiding my study are informed by variables which fall into one of two broad categories. The first are those variables which represent individual characteristics, including teachers' beliefs about the perceived seriousness of the bullying situation, their level of empathy toward the victim, and their self-efficacy beliefs. The second group of variables represented in my study includes those which explore teachers' perceptions of organizational characteristics. The organizational characteristics examined in the current study include a measure of organizational health as well as several questions about school programs, policies, and procedures related to bullying. Only two variables measuring teachers' perceptions of organizational characteristics were significant in the bivariate analyses. These included the presence of a bullying education program for students and the presence of reporting procedures for incidents of bullying. I also drew upon both bystander and efficacy theories to inform the grouping of variables in the final regression model. As discussed in chapter three, bystander theories provide a framework for understanding the factors which motivate individuals to intervene in various situations and emphasize the role of individual beliefs in motivating helping behavior. Self-efficacy theory also supports the importance of individual beliefs in shaping one's behavior. In addition to these theories, I utilized past research on teacher interventions in bullying situations to inform both the variables included in each model and the order in which the variables were entered. Mertler and Vannatta

(2005) suggest entering the more influential variables first, and based on prior research, individual characteristics have been shown to play a greater role in influencing intervention decisions in bullying situations (Bradshaw, Sawyer, O'Brennan, 2007; Yoon, 2004). Thus, I entered the variables which captured individual teacher characteristics (perceived seriousness, level of empathy, and efficacy) into the second block and the variables which captured organizational characteristics (bullying education program for students and reporting procedures) into the third block.

I conducted a three step hierarchical multiple regression to examine the contribution of several predictor variables in explaining the likelihood of teachers' intervening in the bullying situations. The demographic variables, age and years of teaching experience, were entered at step one. In step two, the scales measuring perceived seriousness, level of empathy, and self-efficacy were entered. And in step three, the variables examining bullying education programs for students and reporting procedures were entered into the equation. The collinearity statistics (i.e. Tolerance and VIF) were examined and all values were within the accepted limits as outlined by Mertler & Vannatta (2005).

The results of step 1 (Table 22) indicated that age and years of teaching experience accounted for 6.8% of the variation in the likelihood of intervention (R^2 = .08, adjusted R^2 = .068). This variance was significantly different from zero ($F_{(2, 151)}$=6.54, p<.01). Age was the only statistically significant independent variable, β = .44, p<.01. In step 2, the variables representing individual characteristics (perceived seriousness, level of empathy, and self-efficacy) were entered into the regression equation. Introducing these variables representing individual characteristics explained an additional 43.3% of the variation in the likelihood of

intervention and this change in R^2 was significant ($F_{(5, 148)}$=31.11, p<.001). Age (β = .32, p<.01), perceived seriousness (β = .51, p<.001) and level of empathy (β = .22, p<.001) were the only statistically significant independent variables in step 2. Adding the perceived organizational characteristics (bullying education program for students and reporting procedures) to the regression model in step 3 explained an additional 1% of the variation in the likelihood of intervention and this change in R^2 was also statistically different from zero ($F_{(7, 146)}$=22.78, p>.001). Age (β = .28, p<.05), perceived seriousness (β = .52, p<.001) and level of empathy (β = .21, p<.01) were also the only statistically significant independent variables in step 3. When all seven independent variables were included in the third step of the regression model, only perceived seriousness, level of empathy, and age were significant predictors of the likelihood of intervention. Together the seven independent variables in the final step accounted for 52.2% of the variance in the likelihood of intervention.

Regression analyses vignette by vignette

Based on the results of the bivariate analyses, I conducted both standard multiple regression and hierarchical multiple regression when analyzing the data vignette by vignette. I utilized standard multiple regression for vignettes one, two, and five given the fact that I only examined individual level characteristics as there were no significant relationships between the organizational level variables and likelihood of intervention at the bivariate level for each of these vignettes. I conducted hierarchical multiple regression for vignettes three, four, and six as each of these vignettes had a few significant correlations between the likelihood of intervention and some of the organizational level characteristics. I utilized a three step model to examine the contribution of the predictor variables in explaining the likelihood of teachers' intervening in the

bullying situations for each vignette, just as I did when examining the data across the vignettes. The demographic variable(s) were entered at step one. In step two, the individual level characteristics which significantly correlated with likelihood of intervention in the bivariate analyses were entered. In step three, the organizational level variables were added and varied by vignette based on their significance at the bivariate level. The collinearity statistics (i.e. Tolerance and VIF) were examined for all models and all values were within the accepted limits as outlined by Mertler & Vannatta (2005).

Vignette one. Standard multiple regression was conducted to determine the accuracy of the independent variables (age, teaching experience, perceived seriousness, level of empathy, and efficacy) predicting the likelihood of intervention for vignette one (indirect verbal bullying). Regression results indicate that the overall model significantly predicts likelihood of intervention, R^2=.220, R^2_{adj}=.194, F(5,150)=8.48, p<.001. This model significantly accounts for 22% of the variance in likelihood of intervention. A summary of the regression coefficients is presented in Table 23 and indicates that only two (perceived seriousness and level of empathy) of the five variables significantly contributed to the model.

Vignette two. Standard multiple regression was utilized for vignette two (direct physical bullying with injury) and results indicate that the overall model significantly predicts the likelihood of intervention, R^2=.468, R^2_{adj}=.454, F(4,158)=34.73, p<.001. This model significantly accounts for 47% of the variance in likelihood of intervention. A summary of the regression coefficients is presented in Table 24 and indicates that only two (perceived seriousness and level of empathy) of the four variables (perceived seriousness, age, teaching experience, and empathy) significantly contributed to the model.

Vignette three. Hierarchical multiple regression was conducted for vignette three (indirect social exclusion). The regression statistics for vignette three are reported in Table 25. The results of step 1 indicated that age and years of teaching experience accounted for 7.1% of the variation in the likelihood of intervention (R^2 = .071, adjusted R^2 = .059). This variance was significantly different from zero ($F_{(2, 161)}$=6.14, p<.01). Age was the only statistically significant independent variable, β = .44, p<.01. In step 2, the variables representing individual characteristics (perceived seriousness and level of empathy) were entered into the regression equation. Introducing these variables representing individual characteristics explained an additional 28.6% of the variation in the likelihood of intervention and this change in R^2 was significant ($F_{(4, 159)}$=22.08, p<.001). Age (β = .30, p<.05), perceived seriousness (β = .41, p<.001) and level of empathy (β = .23, p<.01) were the only statistically significant independent variables in step 2. Adding the perceived organizational characteristics (class size, participation in training, and reporting procedures) to the regression model in step 3 explained an additional .5% of the variation in the likelihood of intervention and this change in R^2 was also statistically different from zero ($F_{(7, 156)}$=15.27, p>.001). Age (β = .28, p<.05), teaching experience (β = -.25, p<.05), perceived seriousness (β = .42, p<.001), level of empathy (β = .22, p<.01), class size (β = -1.3, p<.05), and participation in training (β = .17, p<.01) were all statistically significant independent variables in step 3. Together the seven independent variables in the final step accounted for 40.7% of the variance in the likelihood of intervention.

Vignette four. Hierarchical multiple regression was also conducted for vignette four (direct social exclusion) (see Table 26). The results of step 1 indicated that age accounted for 1.7% of the variation in the likelihood of intervention (R^2 = .017, adjusted R^2 = .010). This

variance was not significantly different from zero ($F_{(1, 149)}$=2.52). In step 2, perceived seriousness, level of empathy, and efficacy were entered into the regression equation. Introducing these variables representing individual characteristics explained an additional 48% of the variation in the likelihood of intervention and this change in R^2 was significant ($F_{(4, 146)}$=36.06, p<.001). Perceived seriousness (β = .54, p<.001) and level of empathy (β = .22, p<.01) were the only statistically significant independent variables in step 2. Adding the perceived organizational characteristics (bullying education program for students and reporting procedures) to the regression model in step 3 explained an additional .1% of the variation in the likelihood of intervention and this change in R^2 was statistically different from zero ($F_{(6, 144)}$=24.27, p>.001). Perceived seriousness (β = .54, p<.001) and level of empathy (β = .21, p<.01) were the only statistically significant independent variables in step 3. Together the six independent variables in the final step accounted for 50.3% of the variance in the likelihood of intervention.

Vignette five. Standard multiple regression was also used for vignette five (direct verbal bullying) to determine the accuracy of the independent variables (age, perceived seriousness, level of empathy, and efficacy) predicting the likelihood of intervention. Regression results indicate that the overall model significantly predicts likelihood of intervention, R^2=.504, R^2_{adj}=.491, F(4,149)=37.88, p<.001. This model significantly accounts for 50% of the variance in likelihood of intervention. A summary of the regression coefficients is presented in Table 27 and indicates that three (perceived seriousness, level of empathy, and efficacy) of the four variables significantly contributed to the model.

Vignette six. Finally, hierarchical multiple regression was utilized for vignette six

(direct physical bullying) (see Table 28). The results of step 1 indicated that age accounted for less than 1% (.9) of the variation in the likelihood of intervention (R^2 = .009, adjusted R^2 = .003). This variance was not significantly different from zero ($F_{(1, 153)}$=1.39). In step 2, perceived seriousness, level of empathy, and efficacy were entered into the regression equation. Introducing these variables representing individual characteristics explained an additional 52.4% of the variation in the likelihood of intervention and this change in R^2 was significant ($F_{(4, 150)}$=42.85, p<.001). Perceived seriousness (β = .48, p<.001) and level of empathy (β = .30, p<.001) were the only statistically significant independent variables in step 2. Adding the perceived organizational characteristics (bullying prevention initiative and reporting procedures) to the regression model in step 3 explained an additional 1.7% of the variation in the likelihood of intervention and this change in R^2 was not statistically different from zero ($F_{(6, 148)}$=30.23). Perceived seriousness (β = .48, p<.001) and level of empathy (β = .29, p<.001) were the only statistically significant independent variables in step 3. Together the six independent variables in the final step accounted for 55.1% of the variance in the likelihood of intervention.

CHAPTER 6

DISCUSSION

This study explored a multi-level approach to school social work practice by examining the characteristics which influence teacher interventions in bullying situations. Recognizing that teachers play an important role in influencing educational, social, and emotional outcomes for students (Lynn, McKay, & Atkins, 2003), this study sought to broaden our understanding of what motivates teachers to intervene in order to inform social work practice with teachers as well as future anti-bullying programs and policies. Of particular interest was examining whether individual teacher characteristics or perceived organizational characteristics played a greater role in motivating teachers to intervene in the bullying situations. The findings from this study highlight the importance of collaboration and adopting a social ecological framework when addressing the problem of bullying in schools. This perspective not only recognizes that bullying behavior is reciprocally influenced by numerous systems but also underscores the important role adults play in the social ecology of youth (Biggs, Vernberg, Twenlow, Fonagy, & Dill, 2008; Espelage & Swearer, 2009; Swearer, Espelage, Vaillancourt, & Hymel, 2010). School social workers are thus challenged to expand their practice to include efforts which build teacher capacity and support a school climate which encourages intervention and engages teachers as valuable resources.

Individual Teacher Characteristics

Perceived seriousness

As evidenced in all of the analyses, individual teacher characteristics proved to be the stronger predictors of likelihood of intervention. In fact, perceived seriousness of the bullying

situation was the strongest predictor of teachers' reported likelihood of intervention when looking at each individual vignette as well as across all vignettes. Previous studies support this finding and also suggest that teachers are more likely to intervene when they perceive the bullying situation as serious (Dedousis-Wallace & Shute, 2009; Ellis & Shute, 2007; Yoon, 2004). These findings, both in the current study as well as in previous research, underscore the importance of creating anti-bullying programs and policies which emphasize teacher education focused on the serious consequences of bullying. Providing teachers with information about the serious long-term impact bullying can have on educational, social, and emotional outcomes appears to be one of the best strategies for encouraging their intervention in bullying situations.

While the findings in the current study did not vary greatly based on the bullying situation, other studies have shown more variability in teachers' beliefs about seriousness based on the type of bullying (Craig et al., 2000; Yoon & Kerber, 2003). The findings in the current study may differ from these earlier studies in a couple of important ways. First, it is possible that selection bias played a role in the ratings of seriousness for each of the vignettes. Teachers who view all types of bullying as a serious problem may have been more likely to complete the survey than those teachers who do not. In addition, the recent passage of anti-bullying legislation may have contributed to more consistent ratings of seriousness across all types of bullying. This legislation has led to an increased awareness about bullying and was not consistently in place at the time these other studies were conducted. Although the variability in the current study was very slight, the differences in mean scores for perceived seriousness are consistent with previous research which shows that teachers tend to view situations involving physical and verbal bullying as more serious than those involving relational bullying (Yoon &

Kerber, 2003). In the current study, vignette two (direct physical bullying) was rated the most serious followed by vignette five (direct verbal bullying), vignette one (indirect verbal bullying), vignette six (direct physical bullying), vignette three (indirect social exclusion) and vignette four (direct social exclusion).

The findings from both the current and previous studies support the need for teacher education centered on what bullying is and how different types of bullying uniquely impact students. While many of the current anti-bullying programs and initiatives include an educational component about the types and consequences of bullying for students, they do not consistently provide these same opportunities for teachers (Ttofi & Farrington, 2009). Expanding intervention efforts to include teachers not only supports a social-ecological framework but also recognizes the important role adults play in influencing bullying behavior within the larger school community (Espelage & Swearer, 2009; Hanish et al., 2005). In a recent study examining individual and contextual factors impacting teachers' attitudes and responses to bullying, Small, Neilsen-Hewett, and Sweller (2013) conclude that the success of prevention efforts depend on teacher education and building teacher awareness of and sensitivity to bullying. Another recent study conducted by Hektner and Swenson (2012) found that teacher beliefs about the normative nature of bullying behavior impacted individual intervention decisions as well as rates of victimization within schools, pointing to a connection between individual beliefs and the beliefs of the larger school culture. Based on their findings, the authors recommend that intervention programs not only target teachers but also focus on increasing empathy toward victims.

Empathy

As predicted, empathy also played a role in teachers' interventions decisions. Consistent with previous studies (Craig et al., 2000; Dedousis-Wallace & Shute, 2009; Yoon, 2004), results show that teachers with a higher degree of empathy toward the victims in the bullying situations also reported a higher likelihood of intervention. This finding held true when looking at teachers' likelihood of intervention across all vignettes as well as vignette by vignette. It is important to consider that the degree of empathy a teacher feels toward a student who is being bullied may reflect their own personal belief system as well as beliefs held by the larger school community. In addition, these beliefs may be influenced by teachers' own personal, familial, and professional experiences with bullying. The development of programs and policies which encourage empathic responses by both individuals and the larger school community are needed, especially in light of research which shows that bullying is reduced when interventions are implemented in the context of a responsive and caring community (Olweus & Linber, 2010; Rigby & Bauman, 2010). Researchers continue to emphasize the importance of school climate when addressing the problem of bullying and have begun to make connections between climate, connectedness, and increased empathic responses (O'Brennan, Waasdorp, & Bradshaw, 2014; Wong, Cheng, Ngan, & Ma, 2011). A recent study conducted by O'Brennan et al. (2014) supports the development of programs and policies focused on building teacher empathy by examining the impact of school staff connectedness on bullying prevention efforts. The authors found that activities designed to strengthen staff connections to students, colleagues, and the larger school community not only impacted staff willingness to intervene in bullying but also increased their level of empathy toward the students involved in the bullying situation

(O'Brennan et al., 2014). These findings, along with those in the current study, support the need for additional research focused on broadening our understanding about the ways in which school climate influences not only the larger school environment but also individual beliefs and intervention decisions.

Self-efficacy

Drawing upon previous research (Bradshaw et al., 2007; Yoon, 2004), I also predicted that self-efficacy beliefs would impact teachers' likelihood of intervention. Looking at the data across all vignettes, teachers' self-efficacy beliefs significantly correlated with their reported likelihood of intervention at the bivariate level but did not significantly contribute to the final multivariate model. When examining the data vignette by vignette, the results showed mixed results, with self-efficacy significantly correlating with teachers' likelihood of intervention in vignettes one (indirect verbal bullying), four (direct social exclusion), five (direct verbal bullying), and six (direct physical bullying) but not in vignettes two (direct physical bullying with injury) or three (indirect social exclusion). Self-efficacy only remained a significant predictor of teachers' likelihood of intervention in the final regression model for vignette five (direct verbal bullying). It is not clear why self-efficacy beliefs played a greater role in predicting teachers' likelihood of intervention in this vignette. It is possible that the verbally aggressive language used by the student in the vignette may have influenced the relationship between self-efficacy beliefs and likelihood of intervention in some way. Additional research is needed to explore how different student behaviors may influence teachers' self-efficacy beliefs and intervention decisions. In the current study, self-efficacy beliefs did not predict intervention in bullying as consistently as in previous studies. One explanation for this difference may relate

to the measure used to study self-efficacy. In the current study, the measure focused on self-efficacy beliefs related to teachers' interactions with others (students, colleagues, and administrators) and their beliefs about their ability to perform certain tasks. The studies which found a stronger link between self-efficacy beliefs and teacher interventions utilized measures which looked more specifically at teacher beliefs about their efficacy in behavior management (Yoon, 2004) and their perceived ability to intervene in bullying without making the situation worse (Bradshaw et al., 2007). The significance of findings in the current study compared with previous studies may illustrate the importance of providing teachers with education focused specifically on strategies for managing bullying behavior rather than focusing more generally on building overall efficacy beliefs. The confidence teachers have in their ability to manage their day to day tasks and relationships may not translate into confidence for managing bullying behavior. A recent study by Dedousis-Wallace et al. (2013) supports the idea of providing teachers with education on bullying as a way to increase their self-efficacy and likelihood of intervention. The authors developed and tested several predictors related to intervention with 326 teachers. In addition, they evaluated a professional development presentation and examined whether participation in this presentation influenced these predictors and intervention decisions. Their findings show that teachers who participated in the presentation, which focused specifically on strategies for intervening in bullying situations, had higher self-efficacy beliefs compared to those who did not attend the training. Most importantly, they found that these self-efficacy beliefs had a direct effect on teachers' reported likelihood of intervention in bullying situations (Dedousis-Wallace et al., 2013).

Teachers as bystanders

Overall, the findings in the current study emphasize the role of individual characteristics in influencing teachers' intervention decisions in bullying situations. The significant roles teachers' perceived seriousness of the bullying situation and their level of empathy toward the students being bullied play in their intervention decisions align with many of the key concepts in the seminal bystander intervention theories (Banyard, 2011; Batson, 1991; Latané & Darley, 1968, 1970). Yet bystander intervention theories have not traditionally been utilized as a theoretical framework for developing anti-bullying programs and policies. In recent years, approaches to bullying prevention have moved away from focusing exclusively on the bully-victim dyad to include interventions focused on bullying as a group process (Salmivalli, 2010). Researchers are increasingly focusing on the role of bystanders in bullying situations, as studies demonstrate that bystander behavior impacts bullying perpetration. In a meta-analysis of school-based bullying prevention programs' effects on bystander behavior, Polanin, Espelage, and Pigott (2012) found support for implementing programs and policies which not only encourage bystander intervention but also convey attitudes and behaviors which support a willingness to intervene. Twemlow, Fonagy, and Sacco (2010) also examined the role of bystanders in bullying and violence within schools. Defining a bystander as an individual or group that plays an active role in facilitating or ameliorating victimization, the authors call for interventions in schools which "focus on the transformation of the bystander into a committed community member/witness" (Twemlow et al., 2010, p. 74). They contend that anyone in the school setting can take on the role of a helpful bystander, including teachers.

Viewing teachers as bystanders in future research creates an opportunity to apply our

knowledge of bystander behavior and theory to the development of programs and policies which emphasize the importance of teacher beliefs in shaping intervention decisions. For example, a few researchers have utilized Latané and Darley's theory (1968) of bystander behavior as a framework for exploring bystander intervention in bullying situations among children. In a review of the literature on group involvement in bullying, Salmivalli (2010) suggests that Latané and Darley's classic theory may provide insight into what motivates and/or discourages children to intervene in bullying situations. He contends that intervention decisions could be influenced by both the "bystander effect", where bystanders are less likely to intervene if others are present and witness the situation and "diffusion of responsibility", where children may feel that they are not responsible for intervening if they see that others are available to respond. Future studies should explore how these concepts may also play a role in influencing teachers' bystanding behavior and intervention in bullying situations.

Pozzoli and Gini (2013) also utilized Latané and Darley's decision model to explain children's bystanding behavior in school bullying. Latané and Darley's (1970) five step model identifies a series of behavioral and cognitive steps an individual must make when deciding to intervene in an emergency and includes: (1) noticing that something is happening, (2) interpreting the event as an emergency, (3) deciding to take responsibility to intervene, (4) knowing what type of help is needed, and (5) deciding to help and taking action. Drawing from a sample of 1754 children and adolescents, Pozzoli and Gini (2013) specifically focused on steps two, three, and four to explain bystanding behavior. They discussed the relationship between step two and the attitudes children and adolescents hold about bullying. They contend that individuals who view bullying as acceptable and not serious are less likely to intervene, whereas

students who hold a negative view of bullying are more likely to become involved in the situation. If students decide that bullying is a serious issue that merits their involvement, they will proceed to step three. Pozzoli and Gini (2013) agree with Latané and Darley's (1968) assessment that the third step represents a critical point in an individual's decision to intervene. They believe step three relates to students' beliefs about personal responsibility and contend that "the ability to reason effectively about the negative consequences of aggression on others contributes to the creation of a sense of responsibility for others" (Pozzoli & Gini, 2013, p. 319-320). Finally, step four involves students knowing what to do in response to incidents of bullying. This step not only requires knowledge about intervention strategies but also requires that students believe they have the capability to make a difference in bullying situations (Pozzoli & Gini, 2013). Given that the findings from the current study emphasize the importance of individual teacher beliefs in shaping intervention decisions, it is easy to see how Latané and Darley's (1968) theory could also relate to the decision making processes of teachers. The significance of teachers' beliefs about the perceived seriousness of the bullying situation in the current study underscores Latané and Darley's (1968) position that an individual must view a situation as serious in order to intervene. The importance of beliefs about personal responsibility in step three also connects to the findings in the current study which emphasize the importance of empathy beliefs in shaping teachers' intervention decisions. Several of the teachers who participated in the individual interviews from this study talked about the connection between personal responsibility, empathy, and intervention. As one teacher stated, "when I see a student who's almost in tears, that's what we're there for. We're there to be the advocates for the kids". Another teacher echoed these ideas when talking about intervention in bullying situations by

saying, "obviously, it's one of those things you just know. It's the difference between right and wrong. It's just not something that's okay. We know, as adults, these are things that do affect kids and we need to make sure we are reiterating to them that school is a safe place and that teachers do care." In addition, the third and fourth steps in Latané and Darley's (1968) framework seem to speak to the importance of developing teacher education programs which not only focus on teaching specific skills for intervening in bullying situations but also engender a sense of shared responsibility in bullying prevention and intervention. Future research should explore the ways in which theoretical models like Pozzoli and Gini's (2013) can be utilized to further our understanding of the factors which motivate teachers to intervene in bullying.

Perceived Organizational Characteristics

In relation to the perceived organizational characteristics, I predicted that all of these variables would significantly correlate with teachers' reported likelihood of intervention. When looking at the data across all vignettes, only the presence of a bullying education program for students and the presence of reporting procedures for incidents of bullying significantly correlated with teachers' likelihood of intervention. These variables, however, did not prove to be significant predictors of intervention in the final analyses. The results differed when examining the relationship between organizational characteristics and likelihood of intervention vignette by vignette. Class size, the presence of reporting procedures, and participation in training related to bullying all significantly correlated with teachers' likelihood of intervention in vignette three (indirect social exclusion). Class size and participation in training remained significant predictors of intervention in the final regression model for vignette three (indirect social exclusion) only. Consistent with previous studies, teachers who participated in training

related to bullying were more likely to intervene in this bullying situation when compared with teachers who had not received training in vignette three (indirect social exclusion). Sairanen & Pfeffer (2011) also found that teachers who participated in anti-bullying training scored significantly higher on measures related to how they would work with victims, work with the bully, discipline the bully, and elicit help from other adults. The significance of training in this particular vignette might also relate to the type of bullying that was presented, a situation of indirect social exclusion. Research shows that teachers are less likely to perceive indirect and relational bullying as serious (Bauman & Del Rio, 2006; Yoon & Kerber, 2003). Participation in training may help teachers recognize the serious consequences of this type of bullying and encourage their intervention in these situations. Indeed, a recent study conducted by Dedousis-Wallace et al., (2014) found that teachers who participated in a professional development presentation were more likely to intervene in indirect bullying.

Results reveal that teachers with smaller class sizes were also more likely to intervene in vignette three. A couple of factors may contribute to this finding. First, prior research shows that class size plays a role in bullying behavior because bullying is more likely to occur in larger classes (Blatchford, Edmonds, & Martin, 2003; Khoury-Kassabri et al., 2004). Secondly, class size may influence teachers' ability to detect bullying behavior, especially in situations like those presented in vignette three where the bullying might be indirect and relational in nature.

In vignette four (direct social exclusion), the presence of a bullying education program for students and of reporting procedures significantly correlated with teachers' reported intervention, although they did not significantly predict intervention in the final regression model. The presence of reporting procedures and the presence of a bullying prevention initiative

significantly correlated with the likelihood of intervention in vignette six (direct physical bullying); however, these variables did not significantly contribute to the final regression model.

Aside from vignette three, the findings reveal that none of the organizational level variables significantly predicted teacher intervention when combined with individual level variables in the multivariate analyses. The fact that several organizational variables significantly correlated with teachers' likelihood of intervention suggests that these variables may be related to intervention in some capacity. Future research should explore the nature of these relationships in order to better understand why the predictive ability of these characteristics greatly diminishes in light of individual teacher characteristics. It is possible that organizational characteristics may indirectly influence intervention decisions by way of individual attitudes and beliefs. For example, having reporting procedures in place may not directly influence whether or not a teacher intervenes but these procedures may convey the message that bullying is a serious problem that needs to be addressed. Future research should explore in greater depth how organizational characteristics may or may not influence teachers' individual beliefs about the perceived seriousness of bullying behavior and indirectly influence their decision to intervene.

Contrary to my final hypothesis, teachers' perceptions of organizational health were not the strongest predictors of teachers' reported likelihood of intervention in the bullying situations. Teachers' perceptions of organizational health did not significantly correlate with or predict intervention when examining the data across all vignettes or vignette by vignette. This finding was somewhat surprising given the research which highlights the role school climate and other organizational factors play in students' and teachers' beliefs about bullying (Bradshaw et al., 2011; Swearer et al., 2006). However, it is possible that beliefs about bullying differ from

intervention decisions in important ways as this finding implies that intervention decisions are motivated more by internal individual beliefs rather than external school-level factors. In his theory of bystander intervention, Batson (1991) contends that helping behavior is motivated by empathy and a genuine concern for others. Through a series of experiments designed to study why people help, he demonstrated that when people feel a high degree of concern for others they will intervene, regardless of what other benefits they may gain from helping (Batson, 1991). The individual interviews also support the idea that personal beliefs plays a role in shaping teachers' intervention decisions. As one teacher stated when discussing her intervention in bullying situations, "when I see that the student is suffering, when I can see that the person who is on the receiving end is hurt, upset, concerned, anything . . . that definitely motivates me." When the findings related to organizational health are viewed from this perspective, it is not surprising that teachers' intervention decisions are influenced more by individual characteristics. Batson's (1991) empathy-altruism model of intervention suggests that teachers will intervene in bullying situations because they personally believe it is the right thing to do, regardless of the organizational climate in their schools. Several teachers who participated in the individual interviews echoed these ideas as they discussed what motivates them to intervene in bullying situations. As one teacher stated, "if you see it happening, you just can't let it happen. I need to intervene and I will. It's just the right thing to do." Another teacher shared, "there's more of a calling to teaching. As a teacher, it's my role to have a positive impact on a kid. If I can really stand up for them, build some confidence in them then I've done my job." Future studies should focus on how Batson's theory can be applied to better understand teacher interventions in bullying situations. In particular, attention should be given to the ways in which programs and

policies foster genuine concern and empathy toward others. A recent study conducted by Dedousis-Wallace et al. (2014) supports the application of Batson's theory to teacher interventions and concludes that teacher education "may be most effective if it focuses on feelings more than facts" (p. 12).

Implications for School Social Work Practice

Researchers are increasingly contextualizing bullying within a social-ecological framework (Card, Isaacs, & Hodges, 2008; Espelage & Swearer, 2010). A social-ecological model acknowledges that bullying behaviors are shaped by both individual characteristics and the contextual systems of family, peer group, school, community, and society (Espelage & Swearer, 2010). An ecological orientation also represents the most desired framework for school social work practice (Frey & Dupper, 2005; Swearer & Espelage, 2004) as it recognizes that individuals are part of interrelated systems (microsystems, mesosystems, and macrosystems) which interact and shape one another (Bronfenbrenner, 1979). In light of the current study, an ecological perspective provides a framework for understanding how different systems within a school interact and influence teachers' intervention decisions. A social ecological orientation also challenges school social workers to move beyond interventions with individual students in order to support a broader approach which recognizes the important role teachers play in creating a safe school environment.

The clinical quadrant model presented by Frey & Dupper (2005) provides a conceptualization of school social work practice and offers an example of how an ecological model could be used to guide social work practice as it relates to bullying. The model inherently recognizes the interrelatedness of various systems and provides a broad framework for

considering programs and policies designed to support teacher interventions in bullying situations. The model represents two dimensions by focusing on the desired unit of change (ranging from individuals to the environment/ecology) and the people that are engaged (ranging from individuals to entire systems). The focus of quadrant A is to intervene with individuals and small groups in order to promote change within the broader environment. Interventions in this quadrant are focused on key leaders and, when applied to bullying, might involve school social workers providing administrators with information about the importance of collaborative approaches to bullying prevention. Quadrant B also promotes environmental/systemic change but focuses instead on interventions involving large groups or systems. In this quadrant, school social workers could actively participate in the interdisciplinary teams responsible for developing school-wide prevention and intervention efforts in order to advocate for programs which focus on building individual teacher capacity and skill. The focus in quadrants C and D is on individual-level change. In quadrant C, the school social worker engages with individuals or small groups, whereas in quadrant D they intervene with large groups. In light of the current study, interventions in quadrant C could involve school social workers engaging with individual teachers to provide support and problem-solve specific situations. In this quadrant, small group work could also focus on developing informal groups for teachers to share strategies for student support and intervention. Interventions addressing bullying in quadrant D might involve the school social worker conducting education with the entire staff during meetings or professional development. Social workers could focus on providing education to all teachers about the seriousness consequences of bullying while also directly teaching strategies for intervening in bullying situations.

The ecological orientation of social work practice also provides a strong framework for guiding collaboration between teachers and social workers. Because teachers play a central role in the lives of students, it is necessary for school social workers to view teachers as valuable resources in their efforts to address bullying. As stated by D'Agostino (2013), "declining resources during times of heightened social problems make collaboration essential for efficient school social work practice and require school social workers to take a proactive approach" (p. 250). In a review of the literature on teacher involvement in school mental health interventions, Franklin et al. (2012) posit that teachers are indeed valuable partners in the delivery of mental health interventions in school. Drawing upon data from the National School Social Work Survey (2008), Berzin et al. (2011) explore different aspects of collaboration and highlight how collaboration can be used to meet the mental health needs of students. Two aspects of collaboration identified in the study have implications for social work practice as it relates to supporting teacher interventions in bullying situations. First, school social workers acting as consultants could work with teachers to develop and practice the strategies needed to successfully intervene in bullying situations. Taking on the role of consultant, school social workers could also work to develop and deliver professional development to teachers. On-going education could be provided to better equip teachers with the information and skills needed to become primary responders in situations of bullying. School social workers could also enhance collaboration through school-wide improvements and system-level work. They could participate in school, district, and/or state committees and advocate for the development of anti-bullying programs which focus the factors which influence teachers' intervention decisions. In addition, school social workers collaborating on a systems level could engage in ongoing research to

evaluate the effectiveness of programs in not only addressing bullying but also in their support of teachers.

Limitations

It is important to consider some of the limitations when reviewing the findings of the current study. First, I was not able to make causal inferences or determine the directionality of the associations given that I conducted the analysis with cross-sectional data. Future studies should consider using longitudinal data. Because longitudinal studies allow for repeated observations of study participants, future research using this methodology might better explain how individual and school characteristics impact teachers' decisions to intervene in bullying situations over time. Another limitation of the study relates to the generalizability of the findings. Although participating teachers worked in districts situated within various locations (suburban, rural, town, and city), their experiences may not represent the experiences of teachers in other districts. In addition, the teachers participating in the current study overwhelming identified as Caucasian and female and thus the findings may not be generalizable to other populations. Although the current study included a social desirability scale, it still cannot be assumed that teachers' responses to the hypothetical situations actually translate into action when faced with a bullying situation. In fact, previous research reveals that there is often a mismatch between teachers' beliefs about their response to bullying and student perceptions of their interventions (Bradshaw et al., 2007; Smith & Shu, 2000). Future studies should incorporate observational research in order to provide more insight into teachers' actual responses. The voluntary nature of the survey might also contribute to some degree of selection bias, as teachers who are more concerned about bullying may have been more likely to participate. In the current

study, the response rate varied greatly by district. The factors which contributed to this variation are not known and may have played a role in influencing teachers' decisions to participate in the study. Finally, there may be other factors which impact teachers' interventions which were not examined in the current study, such as past personal experiences with bullying, bullying among staff, or other school policies/procedures.

Additional Recommendations for Future Research

The findings from this study underscore the importance of linking theory, research, and program/policy development. In fact, many researchers are calling for stronger theoretical frameworks when developing anti-bullying programs and policies. In an article examining ways to enhance efforts to address bullying, Swearer et al. (2010) posit that it is important to develop anti-bullying programs grounded in a guiding theoretical framework and contend that whole-school approaches to bullying prevention often yield mixed results because they are not grounded in theory. Utilizing a theoretical framework to guide their study of teacher interventions in bullying, Duong and Bradshaw (2013) provide an example of how theory can guide research and inform the development of anti-bullying programs. The authors assert that the "lack of a theoretical framework to guide the research on the association between teachers' perceptions and responses to bullying has limited our ability to organize findings and determine subsequent research steps" (Duong & Bradshaw, 2013, p. 423). The theoretical frameworks developed by Latané and Darley (1968, 1970), Batson (1991), and Banyard (2011) should be utilized in future studies as they provide important insights into the factors which influence intervention decisions. In addition, future research should recognize the bystanding role teachers occupy in the social ecology of bullying. Viewing teachers as bystanders allows researchers to

draw upon a growing body of literature focused on bystander behavior among students. The findings and recommendations of these studies could be extended to teachers in order to inform future programs and policies.

Consistent with previous research (Craig et al., 2000; Small et al., 2013; Yoon & Kerber, 2003), the findings in the current study also point to the need for additional research examining differences in teachers' intervention decisions based on the type of bullying situation. Given the differences noted when examining individual teacher characteristics and perceived organizational characteristics vignette by vignette, future research should aim to explore how the type of bullying may influence teachers' intervention decisions. In particular, understanding how different types of bullying may impact teacher intervention will be important when developing anti-bullying programs and policies.

Conclusion

The problem of bullying continues to receive a great deal of attention in the research literature, given the serious consequences for victims, bullies, and the overall climate of schools (Limber, 2002; Nansel et al., 2003; Whitted & Dupper, 2005). Building on the values, roles, and functions of our profession, school social workers are well positioned to not only intervene at the micro, mezzo, and macro-levels but also to advocate for programs and policies which build teacher capacity and skill. The current study provides important information about the factors which influence teacher interventions in bullying situations. The findings point to the central role teachers' individual attitudes and beliefs play in their intervention decisions and underscore the importance of educating teachers about the seriousness consequences of bullying. Although the organizational characteristics did not prove to be as predictive of teachers' intervention in the

current study, future research should continue to explore the avenues by which organizational level factors may influence individual attitudes and beliefs. The study also shows how school social workers can utilize the seminal theories on bystander intervention (Batson, 1991; Latane & Darley, 1970) to develop practice models which emphasize collaboration and acknowledge the important role all bystanders, including teachers, play in addressing the problem of bullying. Finally, this study highlights the importance of adopting a social ecological approach to bullying as this framework provides school social workers with the opportunity to work collaboratively with teachers to achieve the shared goal of creating a safe and caring school environment.

Table 1

Response Rates

District	Teachers (FTE)	Surveys completed	Response Rate
1	69 (68.11)	55	80%
2	60 (59.89)	10	17%
3	49 (48.23)	9	18%
4	18 (17.55)	18	100%
5	35 (34.36)	18	51%
6	27 (26.9)	7	26%
7	40 (39.37)	12	30%
8	42 (41.27)	14	33%
9	32 (31.34)	26	81%
10	31 (30.96)	6	19%
Total	403	213	53%

Table 2

District and Building Information

	Student Enrollment (District)	Student Enrollment (Building)	Teaching Staff (Building)	Percentage of Students Eligible for Free & Reduced Lunch (Building)
District 1	4377	1289	69	38
District 2	6139	1010	60	10
District 3	15333	1009	49	19
District 4	1454	355	18	54
District 5	4582	662	35	29
District 6	1940	412	27	70
District 7	7466	725	40	56
District 8	5468	954	42	18
District 9	3009	691	32	36
District 10	2501	604	31	9

Note. Data gathered from the State of Michigan Center for Educational Performance and Information, the 2012 Michigan Education Directory, and district websites

Table 3

Demographic Data on Pupils in Participating Districts

	American Indian	Asian	African American	Native American	White	Hispanic	Multi-Racial	Total Enrollment
District 1	0	15 (1%)	5*	1*	1234 (96%)	27 (2%)	7*	1289
District 2	0	279 (28%)	101 (1%)	2*	585 (.58%)	34 (3%)	9 (1%)	1010
District 3	2*	20 (2%)	33 (3%)	0	916 (91%)	28 (3%)	10 (1%)	1009
District 4	3 (1%)	2*	4 (1%)	0	318 (90%)	22 (6%)	6 (2%)	355
District 5	3*	18 (3%)	8 (1%)	0	564 (85%)	41 (6%)	28 (4%)	662
District 6	1*	0	281 (68%)	1*	105 (25%)	21 (5%)	3 (1%)	412
District 7	0	55 (8%)	14 (2%)	0	333 (46%)	287 (40%)	36 (5%)	725
District 8	1*	16 (2%)	7 (1%)	1*	903 (95%)	21 (2%)	5*	954
District 9	6 (1%)	5 (1%)	8 (1%)	1*	652 (94%)	16 (2%)	3*	691
District 10	2*	5 (1%)	1*	1*	546 (90%)	21 (3%)	28 (3%)	604

Notes. Building level pupil headcount data (Fall 2012) retrieved on June 18, 2013 from the Center for Educational Performance and Information at www.michigan.gov/cepi. *****Indicates less than 1% of district pupil population.

Table 4

District Locale Classifications

Classification Locale	*N*
Rural – Fringe	1
Town – Fringe	2
City – Small	1
Suburb – Small	1
Suburb – Midsize	1
Suburb - Large	4

Note. Locale classification information was retrieved on July 8, 2013 from the National Center for Educational Statistics at www.nces.ed.gov/ccd/rural_locales.asp.

Table 5

Demographic Characteristics of Participants (N = 176)

Characteristic	*N*	%
Gender		
Male	41	23
Female	134	77
Race		
American Indian/Alaska	1	0.6
Native		
Asian	1	0.6
African American/Black	1	0.6
Hispanic	0	0
Caucasian/White	167	95
Other	2	1.1
Education		
Bachelor's Degree	31	17
Master's Degree	123	70
Educational Specialist	13	7
Degree		
Other	5	3
Grade Level Taught		
Sixth	17	10
Seventh	40	23
Eighth	46	26
Other	69	39
Age		
29 years or younger	19	11
30-39 years	51	29
40-49 years	53	30
50-59	24	14
60 years and older	10	6
Teaching Experience		
10 years or less	44	25
11-15 years	39	22
16-20 years	28	16
21-25 years	21	12
26-30 years	11	6
31 years or more	20	11

Notes. Totals of *n* do not equal 176 for every characteristic because of missing data. Totals of percentages are not 100 for every characteristic because of rounding.

Table 6

Univariate Distributions for Continuous Study Variables

Variables	*M*	*SD*	Min	Max	Range
Bullying Attitudes Questionnaire					
Overall Perceived Seriousness	26.28	2.96	17	30	13
Overall Level of Empathy	26.20	3.55	16	30	14
Overall Likelihood of Intervention	27.85	2.45	19	30	11
OHI-M					
Full Scale	134.62	15.58	93	172	79
II	18.75	3.60	7	26	19
CL	28.14	5.29	11	36	25
PI	18.07	2.66	10	24	14
RS	17.30	3.78	8	24	16
TA	27.04	3.36	18	32	14
AE	24.92	3.68	13	35	22
Efficacy					
Full Scale	122.46	12.63	76	144	68
Classroom Management	69.23	7.30	45	84	39
Collegial Support	27.49	2.88	17	30	13
Principal Support	25.78	4.73	7	30	23
SDS	9.09	3.46	0	16	16
Class Size	27.32	6.12	5	42	37
Training Hours	5.52	7.04	0	40	40

Table 7

Univariate Distributions for Continuous Study Variables – Perceived Seriousness

Variables	*M*	*SD*	Min	Max	Range
Bullying Attitudes Questionnaire					
Vignette 1- Perceived Seriousness	4.68	.516	3	5	2
Vignette 2 – Perceived Seriousness	4.76	.467	1	5	4
Vignette 3 – Perceived Seriousness	4.02	.773	2	5	3
Vignette 4 – Perceived Seriousness	3.99	.904	2	5	3
Vignette 5 – Perceived Seriousness	4.75	.559	2	5	3
Vignette 6 – Perceived Seriousness	4.16	.801	2	5	3

Table 8

Univariate Distributions for Continuous Study Variables – Level of Empathy

Variables	*M*	*SD*	Min	Max	Range
Bullying Attitudes Questionnaire					
Vignette 1 – Level of Empathy	4.52	.746	1	5	4
Vignette 2 – Level of Empathy	4.54	.721	1	5	4
Vignette 3 – Level of Empathy	4.29	.716	1	5	4
Vignette 4 – Level of Empathy	4.23	.731	2	5	3
Vignette 5 – Level of Empathy	4.57	.666	2	5	3
Vignette 6 – Level of Empathy	4.28	.697	2	5	3

Table 9

Univariate Distributions for Continuous Study Variables – Likelihood of Intervention

Variables	*M*	*SD*	Min	Max	Range
Bullying Attitudes Questionnaire					
Vignette 1 – Likelihood of Intervention	4.82	.482	1	5	4
Vignette 2 – Likelihood of Intervention	4.88	.346	3	5	2
Vignette 3 – Likelihood of Intervention	4.43	.692	3	5	2
Vignette 4 – Likelihood of Intervention	4.38	.756	2	5	3
Vignette 5 – Likelihood of Intervention	4.86	.383	3	5	2
Vignette 6 – Likelihood of Intervention	4.52	.679	2	5	3

Table 10

Univariate Distributions for Categorical Independent Variables

Variables	*N*	%
Participation in Training		
Yes	112	63.6
No	64	36.4
Training Location		
Undergraduate Program	2	1.1
Graduate Program	7	4.0
District/School sponsored Training	85	48.3
Out of district conference or workshop	15	8.5
Other	3	1.7
Bullying Education Program for students		
Yes	117	66.5
No	23	13.1
Don't Know	35	19.9
Bullying Education Program for parents		
Yes	67	38.1
No	31	17.6
Don't know	77	43.8
Reporting procedures		
Yes	139	79.0
No	9	5.1
Don't know	27	15.3
Prevention Initiative		
Yes	85	48.3
No	34	19.3
Don't know	57	32.4

Table 11

Correlations for Likelihood of Intervention and Individual Level Characteristics Across all Vignettes

Measure	1	2	3	4
1. Likelihood of Intervention Scale	--			
2. Perceived Seriousness	.669***	--		
3. Level of Empathy	.440***	.479***	--	
4. Efficacy Beliefs	.244**	.186*	.128	--

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 12

Correlations of Likelihood of Intervention with Individual Level Characteristics by Vignette

Likelihood of Intervention	Measures		
	Perceived Seriousness	Level of Empathy	Self-Efficacy
Vignette 1 (Indirect Verbal Bullying)	.353***	.312***	.198***
Vignette 2 (Direct Physical Bullying with Injury)	.631***	.337***	.101
Vignette 3 (Indirect Social Exclusion)	.529***	.333***	.091
Vignette 4 (Direct Social Exclusion)	.668***	.457***	.165*
Vignette 5 (Direct Verbal Bullying)	.698***	.508***	.296***
Vignette 6 (Direct Physical Bullying)	.630***	.544***	.241**

*Note. *p<.05,** p<.01,*** p<.001*

Table 13

Correlations for Likelihood of Intervention and Organizational Characteristics Across all Vignettes

Measure	1	2	3
1. Likelihood of Intervention Scale	--		
2. OHI-M	.035	--	
3. Class Size	-.106	-.007	--

Table 14

Independent Groups t-Test, Differences in Likelihood of Intervention Across all Vignettes

Variables	*M*	*SD*	*t*	η^2
Bullying Education Program – Students			2.53*	0.04
Yes	28.17	2.18		
No/Don't Know	27.16	2.84		
Reporting Procedures			2.59*	0.04
Yes	28.09	2.34		
No/Don't Know	26.92	2.64		
Bullying Education Program – Parents			.407	.000
Yes	27.94	2.67		
No/Don't Know	27.78	2.32		
Bullying Prevention Initiative			-.745	.003
Yes	27.71	2.59		
No/Don't Know	27.99	2.31		
Participation in Training			1.27	.009
Yes	28.04	2.43		
No/Don't Know	27.55	2.48		

Note. * $p < .05$

Table 15

Correlations of Likelihood of Intervention with Organizational Level Characteristics by Vignette

	Measures	
Likelihood of Intervention	Organizational Health	Class Size
Vignette 1 (Indirect Verbal Bullying)	-.016	-.107
Vignette 2 (Direct Physical Bullying with Injury)	-.002	-.074
Vignette 3 (Indirect Social Exclusion)	-.039	-.171*
Vignette 4 (Direct Social Exclusion)	-.030	-.007
Vignette 5 (Direct Verbal Bullying)	.132	-.082
Vignette 6 (Direct Physical Bullying)	.069	-.114

Note. *$p<.05$

Table 16

Differences in Likelihood of Intervention for Vignette 1 (Indirect Verbal Bullying)

Variables	*M*	*SD*	*t*	η^2
Bullying Education Program – Students			1.88	0.05
Yes	4.87	.384		
No/Don't Know	4.69	.663		
Reporting Procedures			1.45	0.04
Yes	4.85	.469		
No/Don't Know	4.69	.577		
Bullying Education Program – Parents			.088	.000
Yes	4.82	.630		
No/Don't Know	4.81	.393		
Bullying Prevention Initiative			-.142	.000
Yes	4.81	.591		
No/Don't Know	4.82	.386		
Participation in Training			1.63	.015
Yes	4.86	.046		
No/Don't Know	4.73	.064		

Note. $*p < .05$

Table 17

Differences in Likelihood of Intervention for Vignette 2 (Direct Physical Bullying with Injury)

Variables	*M*	*SD*	*t*	η^2
Bullying Education Program – Students			.607	0.00
Yes	4.89	.316		
No/Don't Know	4.85	.405		
Reporting Procedures			-.214	0.00
Yes	4.88	.354		
No/Don't Know	4.89	.319		
Bullying Education Program – Parents			-.880	.005
Yes	4.85	.402		
No/Don't Know	4.90	.306		
Bullying Prevention Initiative			.086	.000
Yes	4.88	.361		
No/Don't Know	4.88	.331		
Participation in Training			1.02	.006
Yes	4.90	.332		
No/Don't Know	4.84	.366		

Note. $*p < .05$

Table 18

Differences in Likelihood of Intervention for Vignette 3 (Indirect Social Exclusion)

Variables	*M*	*SD*	*t*	η^2
Bullying Education Program – Students			1.33	0.01
Yes	4.47	.702		
No/Don't Know	4.32	.664		
Reporting Procedures			1.96*	0.02
Yes	4.47	.697		
No/Don't Know	4.22	.637		
Bullying Education Program – Parents			.712	.003
Yes	4.47	.728		
No/Don't Know	4.39	.670		
Bullying Prevention Initiative			-.033	.000
Yes	4.42	.713		
No/Don't Know	4.43	.672		
Participation in Training			2.12*	.025
Yes	4.51	.687		
No/Don't Know	4.28	.678		

Note. *$p < .05$

Table 19

Differences in Likelihood of Intervention for Vignette 4 (Direct Social Exclusion)

Variables	*M*	*SD*	*t*	η^2
Bullying Education Program – Students			2.30*	0.03
Yes	4.45	.752		
No/Don't Know	4.16	.788		
Reporting Procedures			2.19*	0.03
Yes	4.43	.750		
No/Don't Know	4.11	.820		
Bullying Education Program – Parents			.545	.002
Yes	4.40	.787		
No/Don't Know	4.33	.768		
Bullying Prevention Initiative			-1.81	.019
Yes	4.25	.853		
No/Don't Know	4.47	.677		
Participation in Training			.042	.000
Yes	4.36	.794		
No/Don't Know	4.36	.743		

Note. * $p < .05$

Table 20

Differences in Likelihood of Intervention for Vignette 5 (Direct Verbal Bullying)

Variables	*M*	*SD*	*t*	η^2
Bullying Education Program – Students			1.70	0.04
Yes	4.89	.342		
No/Don't Know	4.76	.512		
Reporting Procedures			1.28	0.04
Yes	4.87	.355		
No/Don't Know	4.75	.554		
Bullying Education Program – Parents			.786	.004
Yes	4.88	.412		
No/Don't Know	4.83	.403		
Bullying Prevention Initiative			-1.23	.010
Yes	4.81	.478		
No/Don't Know	4.89	.319		
Participation in Training			.905	.005
Yes	4.87	.389		
No/Don't Know	4.81	.432		

Note. $*p < .05$

Table 21

Differences in Likelihood of Intervention for Vignette 6 (Direct Physical Bullying)

Variables	*M*	*SD*	*t*	η^2
Bullying Education Program – Students			1.46	0.01
Yes	4.56	.665		
No/Don't Know	4.39	.731		
Reporting Procedures			2.52*	0.04
Yes	4.57	.653		
No/Don't Know	4.25	.770		
Bullying Education Program – Parents			1.34	0.01
Yes	4.59	.660		
No/Don't Know	4.45	.704		
Bullying Prevention Initiative			-2.00*	.025
Yes	4.40	.775		
No/Don't Know	4.61	.578		
Participation in Training				.000
Yes	4.50	.704	-.144	
No/Don't Know	4.52	.666		

Note. * $p < .05$

Table 22

*Predicted Likelihood of Intervention in Bullying Situations Across all Vignettes (*N*=154)*

Step and predictor variables	*B*	*SE B*	*B*	R^2	ΔR^2	ΔF
Step 1				.080	.080	6.54**
Age	.094	.038	.436**			
Years of teaching experience	-.045	.042	-.186			
Step 2				.512	.433	43.78***
Age	.069	.028	.321**			
Years of teaching experience	-.044	.031	-.183			
Perceived seriousness	.395	.052	.513***			
Level of empathy	.136	.041	.216***			
Self-efficacy	.016	.010	.091			
Step 3				.522	.010	1.46
Age	.061	.028	.283*			
Years of teaching experience	-.039	.031	-.163			
Perceived seriousness	.398	.052	.517***			
Level of empathy	.131	.041	.209**			
Self-efficacy	.012	.011	.070			
Bullying education program for students	.007	.287	.001			
Reporting procedures	.533	.321	.102			

*Note. * p < .05, **p < .01, *** p < .001*

Table 23

Predicted Likelihood of Intervention for Vignette One (Indirect Verbal Bullying)

Variable	*B*	*SE B*	*B*	*T*	*P*
Age	.008	.006	.221	1.46	.148
Teaching Experience	-.001	.006	-.013	-.086	.931
Perceived Seriousness	.208	.057	.276	3.67	.000***
Level of Empathy	.085	.041	.156	2.07	.041*
Efficacy Beliefs	.004	.002	.124	1.71	.090

Note. *$p < .05$, *** $p < .001$

Table 24

Predicted Likelihood of Intervention for Vignette Two (Direct Physical Bullying with Injury)

Variable	*B*	*SE B*	*B*	*T*	*P*
Age	.006	.004	.174	1.61	.110
Teaching Experience	-.003	.004	-.091	-.852	.395
Perceived Seriousness	.415	.052	.557	8.02	.000***
Level of Empathy	.077	.033	.159	2.33	.021*

Note. *$p < .05$, *** $p < .001$

Table 25

*Predicted Likelihood of Intervention in Bullying Situations for Vignette Three (Indirect Social Exclusion) (*N=*164)*

Step and predictor variables	*B*	*SE B*	*B*	R^2	ΔR^2	ΔF
Step 1				.071	.071	6.14**
Age	.030	.010	.444**			
Years of teaching experience	-.019	.011	-.253			
Step 2				.357	.286	35.39***
Age	.020	.008	.300*			
Years of teaching experience	-.017	.009	-.225			
Perceived seriousness	.366	.063	.410***			
Level of empathy	.221	.069	.229**			
Step 3				.407	.050	4.35
Age	.019	.008	.280*			
Years of teaching experience	-.019	.009	-.246*			
Perceived seriousness	.378	.062	.424***			
Level of empathy	.209	.067	.216**			
Class Size	-.014	.007	-.127*			
Participation in Training	.237	.091	.166**			
Reporting procedures	.094	.107	.055			

*Note. * p < .05, **p < .01, *** p < .001*

Table 26

*Predicted Likelihood of Intervention in Bullying Situations for Vignette Four (Direct Social Exclusion) (*N*=151)*

Step and predictor variables	*B*	*SE B*	*B*	R^2	ΔR^2	ΔF
Step 1				.017	.017	2.52
Age	.009	.004	.129			
Step 2				.497	.480	46.47***
Age	.003	.004	.037			
Perceived seriousness	.439	.059	.539***			
Level of empathy	.222	.074	.215**			
Self-efficacy	.003	.003	.056			
Step 3				.503	.006	.836
Age	.001	.004	.019			
Perceived seriousness	.437	.060	.537***			
Level of empathy	.217	.075	.210**			
Self-efficacy	.003	.004	.047			
Bullying education program for students	.115	.096	.076			
Reporting procedures	.015	.110	.009			

Note. $^{**}p < .01$, $^{***}p < .001$

Table 27

Predicted Likelihood of Intervention for Vignette Five (Direct Verbal Bullying)

Variable	*B*	*SE B*	*B*	*T*	*P*
Age	.001	.002	.032	.551	.583
Perceived Seriousness	.341	.046	.521	7.38	.000***
Level of Empathy	.118	.038	.210	3.06	.003**
Efficacy Beliefs	.005	.002	.157	2.66	.009**

Note. ***p* < .01, **** p* < .001

Table 28

*Predicted Likelihood of Intervention in Bullying Situations for Vignettes Six (Direct Physical Bullying) (*N*=155)*

Step and predictor variables	*B*	*SE B*	*B*	R^2	ΔR^2	ΔF
Step 1				.009	.009	1.39
Age	.006	.006	.095			
Step 2				.521	.524	56.17***
Age	.002	.004	.024			
Perceived seriousness	.408	.059	.483***			
Level of empathy	.136	.041	.216***			
Self-efficacy	.302	.069	.301***			
Step 3				.532	.017	2.87
Age	.001	.004	.009			
Perceived seriousness	.407	.058	.481***			
Level of empathy	.290	.068	.288***			
Self-efficacy	.005	.003	.086			
Bullying Prevention Initiative	-.136	.077	-.101			
Reporting procedures	.185	.096	.114			

Note. *** $p < .001$

APPENDIX A

SURVEY

Directions: Please read the following situations and answer the questions that follow as if you are the teacher witnessing the bullying event. There are no right or wrong answers.

Your class is getting ready to go to lunch and the students are standing at the door. You hear Student A say to Student B, "Hey, give me your lunch money or I'll find you after school and you'll be sorry." Student B complies at once. This is not the first time this has happened.

1 – In your opinion, how serious is this situation?
- 1=Not at all serious
- 2=Not very serious
- 3=Moderately serious
- 4=Serious
- 5=Very serious

2 – I would be upset by Student A's behavior and feel sympathetic to Student B
- 1=Strongly disagree
- 2=Disagree
- 3=Neither disagree or agree
- 4=Agree
- 5=Strongly agree

3 – How likely are you to intervene in this situation?
- 1=Not at all likely
- 2=Not very likely
- 3=Somewhat likely
- 4=Likely
- 5=Very likely

4 – If you would respond to this situation, what would you do with the student who bullied?

5 – If you would respond to this situation, what would you do with the student who was bullied?

As your students enter your classroom you see Student A kick Student B without provocation. Bruising is evident. Student A has been known to engage in this type of behavior before.

1 – In your opinion, how serious is this situation?

1=Not at all serious
2=Not very serious
3=Moderately serious
4=Serious
5=Very serious

2 – I would be upset by Student A's behavior and feel sympathetic to Student B
1=Strongly disagree
2=Disagree
3=Neither disagree or agree
4=Agree
5=Strongly agree

3 – How likely are you to intervene in this situation?
1=Not at all likely
2=Not very likely
3=Somewhat likely
4=Likely
5=Very likely

4 – If you would respond to this situation, what would you do with the student who bullied?

5 – If you would respond to this situation, what would you do with the student who was bullied?

During a project time you overhear Student A say to Student B, "If you don't let me copy your idea for this project, I'll make sure no one wants to hang out with you." This is not the first time you have heard Student A say this type of thing.

1 – In your opinion, how serious is this situation?
1=Not at all serious
2=Not very serious
3=Moderately serious
4=Serious
5=Very serious

2 – I would be upset by Student A's behavior and feel sympathetic to Student B
1=Strongly disagree
2=Disagree
3=Neither disagree or agree
4=Agree
5=Strongly agree

3 – How likely are you to intervene in this situation?
1=Not at all likely
2=Not very likely
3=Somewhat likely
4=Likely
5=Very likely

4 – If you would respond to this situation, what would you do with the student who bullied?

5 – If you would respond to this situation, what would you do with the student who was bullied?

You have allowed the students in your class to have a little free time because they have worked so hard today. You witness Student A say to Student B, "No, absolutely not. I already told you that you can't sit with us or be a part of our group." Student B sits alone for the remaining time with tears in her eyes. This is not the first time Student A has excluded other students from her group of friends.

1 – In your opinion, how serious is this situation?
1=Not at all serious
2=Not very serious
3=Moderately serious
4=Serious
5=Very serious

2 – I would be upset by Student A's behavior and feel sympathetic to Student B
1=Strongly disagree
2=Disagree
3=Neither disagree or agree
4=Agree
5=Strongly agree

3 – How likely are you to intervene in this situation?
1=Not at all likely
2=Not very likely
3=Somewhat likely
4=Likely
5=Very likely

4 – If you would respond to this situation, what would you do with the student who bullied?

5 – If you would respond to this situation, what would you do with the student who was bullied?

While students are writing, you hear Student A say to Student B "Teachers pet, brown-

noser, suck-up, kiss-ass." Student B tries to ignore the remarks but sulks at his desk. You saw the same thing happen the other day.

1 – In your opinion, how serious is this situation?
1=Not at all serious
2=Not very serious
3=Moderately serious
4=Serious
5=Very serious

2 – I would be upset by Student A's behavior and feel sympathetic to Student B
1=Strongly disagree
2=Disagree
3=Neither disagree or agree
4=Agree
5=Strongly agree

3 – How likely are you to intervene in this situation?
1=Not at all likely
2=Not very likely
3=Somewhat likely
4=Likely
5=Very likely

4 – If you would respond to this situation, what would you do with the student who bullied?

5 – If you would respond to this situation, what would you do with the student who was bullied?

Student B brought a $10 gift card to school. He boasts that he won it in a contest. Student A goes over and smacks his head, demanding the gift card. Student B refuses at first, but eventually gives in.

1 – In your opinion, how serious is this situation?
1=Not at all serious
2=Not very serious
3=Moderately serious
4=Serious
5=Very serious

2 – I would be upset by Student A's behavior and feel sympathetic to Student B
1=Strongly disagree
2=Disagree

3=Neither disagree or agree
4=Agree
5=Strongly agree

3 – How likely are you to intervene in this situation?
1=Not at all likely
2=Not very likely
3=Somewhat likely
4=Likely
5=Very likely

4 – If you would respond to this situation, what would you do with the student who bullied?

5 – If you would respond to this situation, what would you do with the student who was bullied?

Directions: The following are statements about your school, Please indicate the extent to which each statement characterizes your school from **rarely occurs** to **very frequently occurs**.

1=Rarely Occurs
2= Sometimes Occurs
3=Often Occurs
4=Very Frequently Occurs

1. The principal explores all sides of topics and admits that other options exist.
2. Students make provisions to acquire extra help from teachers.
3. The principal gets what he or she asks for from superiors.
4. The principal discusses classroom issues with teachers.
5. The principal accepts questions without appearing to snub or quash the teacher.
6. Extra materials are available if requested.
7. Students neglect to complete homework.
8. The school is vulnerable to outside pressures.
9. The principal is able to influence the actions of his or her superiors.
10. The principal treats all faculty members as his or her equal.
11. Teachers are provided with adequate materials for their classrooms.
12. Teachers in this school like each other.
13. Community demands are accepted even when they are not consistent with the educational program.
14. The principal lets faculty know what is expected of them.

15. Teachers receive necessary classroom supplies.
16. Students respect others who get good grades.
17. Good grades are important to the students of this school.
18. Teachers feel pressure from the community.
19. The principal's recommendations are given serious consideration by his or her superiors.
20. Supplementary materials are available for classroom use.
21. Teachers exhibit friendliness to each other.
22. Students seek extra work so they can get good grades.
23. Select citizen groups are influential with the board.
24. The principal looks out for the personal welfare of faculty members.
25. The school is open to the whims of the public.
26. A few vocal parents can change school policy.
27. Students try hard to improve on previous work.
28. Teachers accomplish their jobs with enthusiasm.
29. The learning environment is orderly and serious.
30. The principal is friendly and approachable.
31. Teachers show commitment to their students.
32. Teachers are indifferent to each other.
33. Teachers are protected from unreasonable community and parental demands.
34. The principal is able to work well with the superintendent.
35. The principal is willing to make changes.
36. Teachers have access to needed instructional materials.
37. Teachers in this school are cool and aloof to each other.
38. Teachers in this school believe that their students have the ability to achieve academically.
39. The principal is understanding when personal concerns cause teachers to arrive late or leave early.
40. Our school gets its fair share of resources from the district.
41. The principal is rebuffed by the superintendent.
42. Teachers volunteer to help each other.
43. The principal is effective in securing the superintendent's approval for new programs or activities.
44. Academically oriented students in this school are ridiculed by their peers.
45. Teachers do favors for each other.

Below you will find a list of statements. Please read each statement carefully and decide if that statement describes you or not. If it describes you, check the word "true"; if not, check the word the "false".

a. I sometimes litter.

b. I always admit my mistakes openly and face the potential negative consequences.
c. In traffic I am always polite and considerate of others.
d. I always accept others' opinions, even when they don't agree with my own.
e. I take out my bad moods on others now and then.
f. There has been an occasion when I took advantage of someone else.
g. In conversations I always listen attentively and let others finish their sentences.
h. I never hesitate to help someone in case of emergency.
i. When I have made a promise, I keep it – no ifs, ands or buts.
j. I occasionally speak badly of others behind their back.
k. I would never live off other people.
l. I always stay friendly and courteous with other people, even when I am stressed out.
m. During arguments I always stay objective and matter-of-fact.
n. There has been at least one occasion when I failed to return an item I borrowed.
o. I always eat a healthy diet.
p. Sometimes I only help because I expect something in return.

Directions: The next set of questions are about your role as a teacher. Please indicate the extent to which you agree or disagree with each statement from **strongly disagree** to **strongly agree**.

1=Strongly disagree
2= Disagree
3= Somewhat disagree
4= Somewhat agree
5= Agree
6= Strongly agree

1. If a student disrupts the lesson, I am able to redirect him quickly.
2. I am able to approach principals if I want to talk about problems at work.
3. I am confident that, if necessary, I can ask my colleagues for advice.
4. There are very few students that I cannot handle.
5. I can get through to most difficult students.
6. When necessary, I am able to bring up problems with principals.
7. I can always find colleagues with whom I can talk about problems at work.
8. I can take adequate measures that are necessary to keep activities running efficiently.
9. I can communicate to students that I am serious about getting appropriate behavior.
10. I am not always able to execute several activities at once.
11. I can manage my class very well.
12. I am confident that, if necessary, I can get principals to help me.
13. I can keep defiant students involved in my lessons.
14. I am always able to make my expectations clear to students.

15. I am able to respond adequately to defiant students.
16. When it is necessary, I am able to get principals to support me.
17. I can keep a few problem students from ruining an entire class.
18. If students stop working, I can put them back on track.
19. I am confident that if necessary I can ask principals for advice.
20. If I feel confronted by a problem with which my colleagues can help me, I am able to approach them about this.
21. When it is necessary, I am able to ask a colleague for assistance.
22. I know what rules are appropriate for my students.
23. I am able to approach my colleagues if I want to talk about problems at work.
24. I am able to begin the scholastic year so that students will learn to behave well.

Directions: Please indicate your response to each of the following.

1. Have you attended training on preventing, identifying, responding to, or reporting incidents of bullying during the current or past school year?
___Yes
___ No

If yes, please indicate where you received your training:
____ Undergraduate program
____ Graduate program
____ District/school sponsored training
____ Out of district conference/workshop
____ Other

Please indicate the amount of training you received in terms of number of hours you spent in the training.
____

2. Does your school have an education program for students on preventing, identifying, responding to, and reporting incidents of bullying and cyber bullying?
____ Yes
____ No
____ Don't Know

3. Does your school have an education program for parents on preventing, identifying, responding to, and reporting incidents of bullying and cyber bullying?
____ Yes
____ No
____ Don't Know

4. Does your school have a procedure in place for reporting an act of bullying?
_____ Yes
_____ No
_____ Don't know

5. Does your school district have a bullying prevention initiative such as a task force, program, teen court, or other initiative which involves school staff, pupils, school clubs, or other student groups, administrators, volunteers, parents, law enforcement, community members, or other stakeholders?
_____ Yes
_____ No
_____ Don't Know

6. Please indicate the average number of students in your classes during this school year:
_____

7. Are you:
_____ Male
_____ Female

8. Please indicate your current age:
_____

9. Please indicate your racial background:
_____ American Indian or Alaska Native
_____ Asian
_____ Native Hawaiian or Other Pacific Islander
_____ Hispanic/Latino
_____ African American or Black
_____ White
_____ Some other race

10. Please indicate your highest level of education:
_____ Bachelor's degree
_____ Masters degree
_____ Educational Specialist degree
_____ PhD
_____ Other

11. Please indicate how many years of teaching experience you have:
_____

12. Please indicate the grade level you teach during the current school year:
_____ Sixth
_____ Seventh
_____ Eighth
_____ Other

13. Please provide your name and contact information if you are interested in participating in a follow-up interview. The interview will further explore the factors which influence your involvement in bullying situations. There will be a small stipend ($20.00 Target gift card for participating). If you provide your contact information, it will not be connected to the responses on your survey. Your contact information will not be included in the analysis of the data.

Name:

Email:

APPENDIX B

INDIVIDUAL INTERVIEW GUIDE

Participant ID Number _____
Date Interview Conducted _____
Length of Interview _____

Teacher Interventions in Bullying Situations Interview Guide

Introduction and Overview

The purpose of this interview is to gain your feedback about the things which may influence your decision to intervene in bullying situations. I really appreciate your willingness to talk with me today and share your thoughts. The information you provide will be extremely helpful.

If it is ok with you, I would like to tape record this interview. It will help me to accurately capture your insights and better focus on our conversation. I will be the only person to listen to the tape recording. When the study is done, the tape will be destroyed. May I tape record our discussion?

Everything we discuss today is private and confidential – your name will not be connected to anything you say. Your name is not on this interview or the tape.

As we go through the interview, please let me know if you need to take a break or stop. If there are any questions you don't want to answer, just say so and I will move on to the next section. You do not have to answer all of the questions in this interview.

Before we get started I need to make sure you have read the Information Sheet that was emailed to you. Have you read the Information Sheet?

Do you have any questions before we start?

Background

I'd like to begin the interview by asking a few questions about bullying.

1. How much of a problem do you think bullying is?
2. Have you witnessed bullying in your school?
   If yes, tell me more about what you have seen.
3. Have you intervened in a bullying situation?
   If yes, tell me more about the situation in which you intervened.

The following questions will ask about various aspects related to intervening in bullying situations. If you have not intervened in a situation, please think about how these things might impact your intervention decisions when faced with a bullying situation.

1. Tell me about what encourages you to intervene in bullying situations?
   Probe: What do you think about when you see or hear about bullying that makes you think you should intervene?
2. Tell me about what prevents you from intervening in bullying situations?

Probe: What do you think about when you see or hear about bullying that makes you think you should not intervene?

3. If you have intervened in a bullying situation, how do you feel your intervention strategies were perceived by students? By other staff? By administrators?
4. What are some aspects of the school environment that support or impede your decision to intervene in bullying situations?

   Probe: What are some things about the physical building, the school culture/climate, administration, or other organizational characteristics that impact your decision to intervene?
5. What resources do you feel are needed to support your intervention in bullying situations?

The next set of questions will focus on training, bullying policies, and prevention/intervention programs

1. What type of training/education have you participated in?

   Probe: Tell me about the information that was covered in your training. Did you learn about direct/indirect types of bullying, relational bullying/social exclusion, or cyber bullying?
2. How do you think your training/education on bullying has impacted your responses to bullying?
3. What type of training do you think would be helpful to new and veteran teachers?
4. How does the presence of an anti-bullying policy in your district influence your intervention decisions?
5. Does your district have a bullying prevention/intervention program?
   a. If yes, how does the presence of this program impact your intervention decisions?

The next couple of questions are about school social workers

1. What role do you see school social workers playing in bullying prevention and intervention efforts?
2. How could a school social worker offer support to you as it relates to your intervention decisions?

Before we end, I have a couple of final questions

1. What grade and subject do you teach?
2. What is your educational background?
3. How many years of teaching experience do you have?
4. (If a phone interview) Where would you like me to send your gift card?

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ABSTRACT

THE INFLUENCE OF INDIVIDUAL AND PERCEIVED ORGANIZATIONAL CHARACTERISTICS ON TEACHER INTERVENTIONS IN BULLYING SITUATIONS

by

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Complex issues, such as bullying, have brought to light the importance of expanding school social work to include interventions focused on multiple levels of practice. Recognizing that teachers play an important role in influencing educational, social, and emotional outcomes for students, this study broadens our understanding of what motivates teachers to intervene in bullying situations in order to inform school social work practice as well as future anti-bullying programs and policies. A cross-sectional descriptive design was utilized to gather data from middle school teachers in ten districts across the state of Michigan (n=176). Participants completed an online survey which included six bullying vignettes as well as several measures examining individual and organizational level characteristics.

Bivariate and multivariate analyses were conducted to explore the relationships between individual and organizational characteristics and teachers reported likelihood of intervention in the bullying situations across all vignettes as well as vignette by vignette. Results of the

regression analyses indicated that teachers' perceived seriousness of the bullying situation, their level of empathy toward the students being bullied, and their age consistently contributed to their reported likelihood of intervention in the bullying situations. The majority of organizational level variables were not significant predictors of teachers' reported likelihood of intervention in the bullying situations when looking across all vignettes as well as vignette by vignette.

Overall, the findings emphasize the role of individual characteristics in influencing teachers' likelihood of intervention in bullying situations. The significant role teachers' perceived seriousness of the bullying situation and their level of empathy toward the students being bullied played in their intervention decisions align with many of the key concepts in the seminal bystander intervention theories. Viewing teachers as bystanders creates an opportunity to apply our knowledge of bystander behavior and theory to the development of programs and policies which emphasize the importance of teacher beliefs in shaping intervention decisions. School social workers can utilize these theories to develop a practice model which emphasizes collaboration and acknowledges the important role all bystanders (including teachers) play in addressing the problem of bullying.

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AUTOBIOGRAPHICAL STATEMENT

I received my Bachelor of Arts degree in Psychology and Sociology from Hope College in 1994, my Master of Social Work degree from Loyola University Chicago in 1999 and my PhD from Wayne State University in 2014.

My practice and research interests are informed by 20 years of direct social work practice with children and families. I have a broad range of experiences working with children, adolescents, and adults in a variety of settings including the schools, the foster care system, and therapeutic settings. My many years of experience in the field have strengthened my commitment to scholarship focused on the development, empowerment, and well-being of children and families. My current research interests include studying factors which impact educational outcomes as well as the expanding role of school social work and the integration of micro, mezzo, and macro levels of practice.

As I begin my academic career, I look forward to collaborating with local schools and agencies, building and sustaining working relationships with a multidisciplinary team of scholars, and conducting research that will inform practice, policy, and improve the lives of children and families.