

2017

Bystanders' Motivation to Intervene in Bullying Situations in Urban Schools

Elizabeth Ayad
Lehigh University

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Bystanders' Motivation to Intervene in Bullying Situations in Urban Schools

by
Elizabeth Ayad

A Dissertation
Presented to the Graduate and Research Committee of Lehigh University
in Candidacy for the Degree of
Doctor of Philosophy
in
School Psychology

Lehigh University
Graduation Date: August 2017

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March 2017

Approved and recommended for acceptance as a dissertation in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

Date

Christine L. Cole, Ph.D.
Dissertation Chair
Professor of School Psychology
Lehigh University

Accepted Date

Committee Members:

Grace Caskie, Ph.D.
Associate Professor of Counseling Psychology
Lehigh University

Christopher Liang, Ph.D.
Associate Professor of Counseling Psychology
Lehigh University

Tracy E. Waasdorp, Ph.D.
Clinical Research
Associate
Children's Hospital of
Philadelphia

Acknowledgements

First and foremost, I would like to thank my Lord and Savior, Jesus Christ. He has guided me and supported me throughout this program, without Him this would have not been possible.

I would like to thank my parents who supported me in every way. Through all the hardships they stood by me and were my voice of encouragement. I would like to thank my sister, Sarah, who was always a positive presence through my time in the program. Most of all, I'd like to thank my wonderful fiancé and best friend, Steven, for his unwavering support through each moment – the struggles, the celebrations, and everything in between. He has been the voice of reason, support, guidance, and love through every step of this journey. Thank you for putting up with the tears, complaints, and not letting me give up. I'd like to thank Brittany Pollack who became my family through the program. We have been through it all together, and you have always been there for me through the ups and downs. I couldn't have gone through the program without you by my side.

I'd like to extend my sincere gratitude to the faculty who have guided me through the program and shaped me into the School Psychologist I am today. To my graduate advisor and mentor, Dr. Chris Cole, thank you for always supporting me through all my endeavors and guiding me through the program. Thank you to Dr. Grace Caskie, Dr. Tracy Waasdorop, and Dr. Chris Liang for all your invaluable input and time you put into this project.

Last but certainly not least, I'd like to thank every child I have worked with and will work with. They are my inspiration and why I have chosen to pursue psychology.

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Abstract

The presence of bullying in schools has been shown to have negative mental health outcomes for all those who are involved including the bully, victim, and bystanders. Bystanders make up the majority of those present in a bullying situation. Bystanders can reinforce, participate in, ignore, or stop bullying by standing up for the victim. Previous research has aimed to investigate what differentiates bystanders who stand up for the victim, the defenders, from other types of bystanders. Previous research has found that there are many factors that influence a bystanders' motivation to intervene in a bullying situation including gender, sympathy, expectation for intervention by others, and prosocial behavior. However, previous research in this area has been exclusively conducted among non-Hispanic White students from suburban areas in the United States or international settings. The present study extended previous research by investigating predictors of a bystanders' motivation to intervene in a bullying situation among predominately African American students in an urban school district in the United States. Results found that a significant positive relationship between sympathy, expectation for intervention, and motivation to intervene. Limitations and future directions are discussed.

CHAPTER I

Statement of the Problem

School violence has become an increasing public health concern in the United States. The Centers for Disease Control and Prevention (Gladden, Vivolo-Kantor, Hamburger, & Lumpkin, 2014) considers school violence as any student violence that occurs on school property, on the way to or from school or school-sponsored events, or during a school-sponsored event. Examples of violent behavior include bullying, fighting, weapon use, electronic aggression, and gang violence. Research has indicated that almost half of students report being personally threatened in school (Flannery, Wester, & Singer, 2004), and that violence, fear, and exploitation are a normal part of going to school (Cowie & Olafsson, 2000). Even elementary-age students are affected by school violence. Flannery and colleagues (2004) investigated violence in 17 public schools across the United States and found that 56 - 87% of elementary-aged students reported witnessing some type of physical violence in school. The increase of aggression in schools, and the subsequent effects on children's psychological health and academic performance, has become of major concern for schools (Gladden et al., 2014).

Bullying is one type of school violence that has received recent attention due to its detrimental effects on mental health outcomes (García & Margallo, 2014; Nickerson & Slater, 2009). Gladden and colleagues (2014) define bullying as unwanted aggressive behaviors by a youth, or group of youths, that involves an actual or perceived power imbalance, and is repeated multiple times or is highly likely to be repeated. Bullying may inflict harm or distress on a student including physical, psychological, social, or educational harm. Bullying can occur in the form of physical aggression, verbal aggression, relational aggression, which involves actions

such as spreading rumors about, shaming, or excluding a person, and cyber bullying which is aggression that occurs online (Gladden et al., 2014). A student can be a perpetrator (bully), a victim, or a witness (bystander).

Bullying has become a serious problem for our schools today. Recent statistics indicate that in 2013, almost one in every four students (23.7%) has reported being bullied in school (National Center for Educational Statistics, 2015). In one large-scale study, 15, 686 students in grades 6 through 10 were surveyed in an effort to better understand the prevalence of bullying in the U.S. (Nansel et al., 2001). Consistent with NCES, results revealed that about one-third (29.9%) of students in the sample reported being involved in bullying. Of those students, 13% identified themselves as the bully, 10.6% reported they were the victim, and 6.3% identified as both. The researchers also found that bullying occurred more at the younger grades (6th through 8th) than the older grades (9th and 10th). Those students who were involved in bullying were associated with significantly poorer psychosocial outcomes than students who were not involved in bullying (Nansel et al., 2001). Furthermore, Wang and colleagues (2009) found that at least 20.8% of youth in the U.S. were physically bullied, 53.6% were verbally bullied, 51.4% were socially bullied, and 13.6% were bullied online in a 2-month period during the school year. The presence of aggression in schools also has detrimental effects on the school at large by creating a negative and hostile climate for all students (Espelage & Swearer, 2004). In addition, high levels of aggression in schools are predictive of future aggressive behavior among children, perpetuating a cycle of violent behavior (Thomas & Bierman, 2006).

Negative Mental Health Outcomes

Because bullying happens in a social context, many systems are influenced by its occurrence including the individual, family, peer group, school, community, and culture

(Espelage & Swearer, 2004). Research suggests that there are negative mental health outcomes for all individuals involved in a bullying situation including the bully, the victim, and those who witness the bullying, known as bystanders (Olweaus 1993; Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996).

Negative mental health outcomes for victims. Being a victim of bullying is associated with a number of psychosocial adjustment problems including low self-esteem, loneliness (Graham, Bellmore, & Mize, 2006), increased anxiety, depression, and suicidal ideation (Rigby & Slee, 1999; Smith & Brain, 2000; Williams, Fredland, Han, Campbell, & Kub, 2009). Being victimized also can influence school life, with an increased likelihood of school avoidance and lower academic achievement (Waasdorp, Pas, O'Brennan, & Bradshaw, 2011). Even being a victim of online bullying has been found to be associated with negative psychological outcomes such as high rates of stress, anxiety, and depression (Beren & Li, 2005). Nansel and colleagues (2001) conducted a large-scale study to investigate the prevalence of bullying in the U.S. and its psychosocial outcomes. Results indicated that poorer relationships with classmates, increased loneliness, and inability to make friends were more likely to characterize students who were victimized than students who were not victimized.

Negative mental health outcomes for bullies. There are also negative psychosocial adjustment problems associated with being the aggressor. Research has shown that bullies who exhibited aggression as preschoolers were significantly more likely to develop aggressive conduct disorder in adolescence (Edmond, Ormel, Veenstra, & Oldehinkel, 2007). In addition to an increase in externalizing behaviors, research has shown that being a bully is linked to an increase in delinquent behavior (Broidy et al., 2003). Also, those who engaged in relational aggression were found to exhibit an increase in internalizing behaviors, social isolation, and

depression, as well as an absence of prosocial behavior (Card, Stucky, Sawalani, & Little, 2008; Storch, Bagner, Geffken, & Baumeister, 2004). In the large-scale study by Nansel et al. (2001), bullying behaviors were associated with increased alcohol use and smoking, poorer academic achievement, and poorer perceived school climate.

Negative mental health outcomes for bystanders. Researchers have estimated that bystanders comprise 80 - 88% of the students who are involved in bullying situations (Craig, Pepler, & Atlas, 2000; Hawkins, Pepler, & Craig, 2001). Evidence suggests that, although the person is not directly involved as a victim or a bully, witnessing bullying can have negative mental health outcomes (Gini, Pozzoli, Borghi, & Franzoni, 2008; Hutchinson, 2012; Salmivalli, 2014). For example, research has found that bystanders have increased levels of anxiety, depression, and substance use as compared with those who do not witness bullying (Rivers, Poteat, Noret, & Ashurst, 2009). Other studies have found that being a bystander of bullying is associated with increases in daily anxiety (Nishina & Juvonen, 2005) and difficulty with emotion regulation when compared to students who do not witness bullying (Musher-Eizenman et al., 2004).

Outcomes in an Urban Environment

Children living in an urban, low-income environment are especially vulnerable to aggression due to the many risk factors and stressors that already exist in their environment (Bronfenbrenner, McClelland, Wethington, Moen, & Ceci, 1996). Research has shown that the prevalence of aggression is especially high for youth from low-income backgrounds when compared to children from higher-income backgrounds (Pouwels & Cillessen, 2013). Due to the many external stressors in these environments, research has found high levels of aggression and stability of aggression over time in children who are from a low-income background (Pouwels &

Cillessen, 2013). One early study found that children from low-income backgrounds who exhibited aggressive behavior had more externalizing and internalizing behavioral problems than children who did not exhibit aggressive behaviors (Coie, Lochman, Terry, & Hyman, 1992). Aggression has been associated with poor peer relations, adverse behavioral outcomes, and a decrease in prosocial behavior for children from low-income families over time (Pouwels & Cillessen, 2013). The researchers found that aggression remained stable over time, in that aggressive behavior at an early age was a precursor to future aggressive behavior. Students who display aggression in urban schools have an increase in perceived popularity, decrease in social preference, and increase in perceived leadership (Waasdorp, Baker, Paskewich, & Leff, 2013). In other words, aggressive students are seen as popular and leaders, but are not necessarily liked by their classmates. Waasdorp and colleagues (2013) also found that aggressive students in an urban elementary school were viewed as popular and leaders in the school. This in turn, affected school climate and reinforced aggressive behavior among students. Because these children were seen as leaders, they had strong influence on other students and the school as a whole. Therefore, these authors suggested there is a strong need for prevention services that target aggressive behavior in urban schools at an early age. These services have the potential to influence school climate and reduce the negative effects of aggression in high-risk, urban schools (Waasdorp et al., 2013).

Social-ecological Framework of Bullying

Espelage and Swearer (2004) proposed examining bullying research and intervention development from a social-ecological framework. These authors adapted Bronfenbrenner (1979) theory to the context of bullying by placing the individual at the center and examining how different systems connect to influence the bullying context. For example, family, culture, and school climate all influence bullying in some way. These systems may reinforce or inhibit

bullying in their environment. For instance, if the individual has peers who bully and is in an environment that supports bullying behavior, these factors may reinforce the individual to behave in an aggressive way toward peers. Likewise, if that same individual is in a school with lower levels of bullying, even if the individual has peers who bully, the individual may not be as likely to display bullying behaviors. Viewing bullying from this framework has an influence on research and intervention development in that, rather than considering only the bully or the victim, other systems that may influence the bullying context are investigated.

Impact of Bystanders Within the Social Context

When viewing bullying from a social-ecological framework, one must consider other peers who are involved. The majority of those who are present in the bullying context are bystanders who witness the bullying happening. In fact, researchers have estimated that bystanders comprise about 80% of the students involved in bullying incidents (Oh & Hazler, 2009). Bystanders can take on many different roles in the bullying situation. Salmivalli (2010) defined the four bystander roles as the assistants of the bully, the reinforcers of the bully, the outsiders, and the defenders of the victim. Assistants are defined as children who join in the bullying, reinforcers provide positive reinforcement to the bullying by laughing or cheering, outsiders withdraw from the situation, and defenders take sides with the victim by comforting and supporting them (Salmivalli, 2010).

Studies have shown that bystanders can have an influence on bullying that occurs in their environment. For example, Hawkins and colleagues (2001) used direct observation of students on the playground and found that peers were present for 88% of the bullying episodes observed. They found that, when peers intervened, they were effective in stopping bullying 57% of the time. These authors concluded that peers can be effective agents in reducing bullying in their

schools and they make up the vast majority of students who are involved in bullying episodes. Because bullying occurs at the group level, interventions should target groups of students, not specific individuals involved (Salmivalli, Voeten, & Poskiparta, 2011).

More recently, Salmivalli and colleagues (2011) found that the frequency of bullying was positively associated with bystander reinforcer roles and negatively associated with bystander defender roles. Because the act of bullying occurs within a social context, the bystanders have the ability to reinforce and maintain aggressive behavior, thereby increasing the likelihood of future aggressive acts and impacting bullying situations in a negative way (Farmer, Lane, Lee, Hamn, & Lamert, 2012). Encouraging the bullying or reinforcing the bully, even in subtle ways such as laughing or smiling, can reinforce the bully to continue and/or increase the amount of bullying. This type of reinforcement can also encourage other students to behave aggressively toward others as well, because the behavior was reinforced. On the other hand, the same study found that bystander defender behavior was negatively associated with the frequency of bullying (Salmivalli, 2010). Providing the bully with negative feedback by challenging or supporting the victim can decrease bullying episodes. Considering research showing the positive influence of bystanders on bullying and the fact this group represents the majority of the students involved in the bullying context, bystanders may have the power to influence the climate in their school.

Research suggests that bystanders may also influence the way bullying affects the victim. Victims have reported that when they had one or more peers defending them when they were being victimized, they felt less anxious and depressed, and had higher self-esteem than victims who did not have a defender (Salmivalli, 2010). It appears that bystanders may create a buffer for victims and the negative psychological affects bullying could have on them.

Therefore, bystanders have the power to influence the bullying context in a negative way, by reinforcing the bullying causing the victimization to increase, or in a positive way, by intervening to reduce the bullying and the negative effects on the victim. Bystanders could be strong agents of change within the bullying framework. Because bystanders make up the majority of students involved in the bullying context and they have been shown to influence bullying, researchers have called for a focus on bystander behavior in bullying interventions. Bystander behavior may be easier to change than the behavior of the perpetrator and, by intervening with bystanders, the social reinforcers associated with bullying could be diminished (Cowie & Olafsson, 2000; Salmivalli, 1999). However, there is a lack of research in the area of bystander behavior for youth from urban schools. All of the aforementioned studies have been conducted with non-Hispanic White and European non-urban youth. However, it is unlikely that the effect of bystander behavior is similar in urban schools, yet there is a lack of research in this area.

Bystander Characteristics

Research has investigated a number of bystander characteristics to determine possible predictors of a positive bystander (i.e., someone who intervenes in a bullying situation to defend the victim). Research has found several characteristics to be predictors of a positive bystander.

Gender. The majority of studies that examined bystander behavior have found that gender is a strong predictor of how bystanders react in bullying situations. Specifically, for elementary age students, the literature is consistent that females are more likely to defend the victim than elementary aged males. Research has found that girls who are bystanders are more likely to engage in positive bystander behaviors such as defending the victim, while boys are associated with more reinforcing behaviors in bullying situations such as laughing, cheering, or

joining the bully (e.g., Cappadocia, Pepler, Cummings, & Craig, 2012; Gini et al., 2008; Oh & Hazler, 2009). Thus, research has shown that gender is an important predictor of the type of behavior bystanders engage in, whether it be intervening on behalf of the victim (positive bystander) or reinforcing the bully (negative bystander). However, it is interesting to note that all the research that has examined gender and its relationship to bystander behavior has involved predominantly non-Hispanic White samples in suburban communities in the U.S. or international settings.

Sympathy toward victim. Another important predictor of positive bystander behavior is the feeling of sympathy, or empathy, toward the victim. While the terms “sympathy” and “empathy” have been used interchangeably in the literature (MacEvoy & Leff, 2012), some have defined these terms differently. Typically sympathy has been defined as simply feeling concerned or badly for another person because of their experiences (Miller & Eisenberg, 1988), while empathy has been described as feeling emotions similar to those of others, in an effort to experience what the other person is experiencing (Miller & Eisenberg, 1988). Using these definitions, sympathy would not imply feeling the same emotions as another person, but rather having an emotional response to their situation (MacEvoy & Leff, 2012). While the current study proposes to measure sympathy, a thorough review of both the sympathy and empathy literature was conducted to better understand the connection to bystander research in bullying situations. The current paper will use the term “sympathy” from this point forward to describe students’ feeling sorry for a victim of bullying.

Many studies have found that sympathy is a significant predictor of positive bystander behavior (e.g., Gini et al., 2008; Nickerson & Taylor, 2014; Thornberg et al., 2012). Nickerson and colleagues (2014) surveyed 262 American students from rural and suburban middle schools,

and found that 49% of students reported feeling sorry for and wanting to help the victim, which in turn had a significant positive correlation with defending behavior.

Studies have also found correlations between gender and sympathy (empathy), in that girls tend to display more sympathetic responses to victims than boys (Almeida, Correia, & Marinho, 2009; Gini, Albiero, Benelli, Altoe, 2008; Gini et al., 2007). In addition, sympathetic responses in boys are more predictive of defending behavior (Cappadocia et al., 2012; Nickerson & Taylor, 2014). Salmivalli (1999) called for a focus on fostering feelings of sympathy in students, to lead them to anti-bullying roles such as defending. A systematic review of the literature conducted by van Noorden and colleagues (2014) reported that sympathy (empathy) and positive bystander behavior such as defending the victim were found to be consistently and significantly related to one another. In response to this finding, many interventions that target bullying have included an sympathy training component, in an attempt to increase sympathy for victims of bullying (Leff, Angelucci, Goldstein, Cardaciotto, Paskewich, & Grossman, 2007; MacEvoy & Leff, 2012; Low, Cook, Smolkowski, & Buntain-Ricklefs, 2015). However, again, the literature related to bystander behavior and sympathy has been conducted exclusively among majority non-Hispanic White samples of students in suburban areas or international settings.

Expectations for intervention. The expectations for intervention from adults and friends in students' lives also have an influence on bystander behaviors. Thornberg and colleagues (2012) found that bystanders were motivated to intervene if they thought that their parents and teachers believed bullying was wrong and expected them to intervene. Expectations from friends to be supportive of victims was also found to be predictive of intervening in bullying situations and being less likely to bully others (Rigby, 2005; Rigby & Johnson, 2006). Perceptions of friends' attitudes and behaviors toward bullies and victims influence an individual to either

reinforce/join in with the bully or support the victim (Nickerson & Taylor, 2014). Therefore, expectations of friends and adults play an important role in the behaviors of students in bullying situations. As with other areas, the research related to expectation of others for intervention has involved predominantly non-Hispanic White student samples.

Prosocial behaviors. Prosocial behaviors, or the presence of positive behaviors that are linked to social adjustment (Crick, 1996), are especially important to examine in the context of bystander behaviors. Research has shown that students who are rated as displaying more prosocial behaviors are more likely to be defenders in a bullying situation (Nickerson & Taylor 2014; Oh & Hazler, 2009; Tani, 2003). Leading researchers in bystander behavior have called for a focus on increasing prosocial behaviors in interventions for the bystander (e.g., Salmivalli, 1999).

Overall, previous research has found that certain characteristics predict positive bystander behaviors in students. However, these characteristics have been studied among majority non-Hispanic White participants in suburban communities in the United States or international settings of middle/upper class youth. The current study aimed to fill this gap in the literature by investigating these characteristics (gender, sympathy, expectations for intervention, and prosocial behavior) as predictors of bystanders' motivation to intervene in bullying situations among predominately African American students in an urban school setting in the United States. A better understanding of these characteristics in this population as compared with the previous literature will help to inform bullying interventions in urban schools with minority children and to find ways to increase bystander motivation to intervene.

Why Bystanders Do Not Intervene

Although there clearly is a rationale for focusing intervention efforts on bystanders, it is important to determine why bystanders sometimes do not intervene when they witness bullying. In a recent study, Thornberg and colleagues (2012) conducted a semi-structured interview with 30 elementary school students to investigate children's reasons for their decision to help or not help the victim when witnessing bullying, and to generate a conceptual framework of bystander motivation in bullying situations. Bystanders reported that the reasons they did not intervene were fear of being victimized, feeling that it was not their place, not knowing what to do, or being concerned about doing the wrong thing and causing more problems (Thornberg et al., 2012). Therefore, research has aimed to investigate what makes those who defend victims in bullying situations different from those who do not. Researchers (e.g., Cappadocia et al., 2012; Nickerson & Taylor, 2014; Obermann, 2011; Thornberg & Jungert, 2013) have identified several possible underlying factors associated with the defending behaviors of bystanders.

Underlying Factors Associated with Bystander Behavior

Bullying bystanders often have a choice of whether to defend the victim (defenders), look the other way (outsiders), or encourage the bully (reinforcers). Several researchers such as Nickerson and Taylor (2014), Obermann (2011), and Thornberg and Jungert (2013) have investigated the underlying factors that motivate students to intervene in a bullying situation, as well as factors that make those students who defend the victim different from other bystanders who do not. Two common themes have emerged as underlying factors that distinguish bystanders who intervene – self-efficacy and responsibility (Thornberg & Jungert, 2013).

Self-efficacy. Self-efficacy is a person's belief in his or her ability to succeed in particular situations. Bandura (1994) described these beliefs as determinants of how people think, behave, and feel. Bandura (1993) proposed that self-efficacy beliefs have an influence on

cognitive processes, which has an influence on motivation to behave, which ultimately influences on behavior. For example, a person with high self-efficacy would anticipate success in a particular situation, especially a difficult one. However, a person with low self-efficacy would not believe in their own ability in a particular situation, rather, would be likely to think of failure which may lead to avoidance or escape of action (Bandura, 1997a). Self-efficacy has a strong influence on the outlook a person has on his or her own capabilities and their possible success or failure in a particular situation.

Research suggests that the concept of self-efficacy may be relevant in explaining why student bystanders intervene in a bullying situation (Thornberg et al., 2012). Studies have found that when students reported that they felt high self-efficacy regarding intervening in bullying situations, they were much more likely to do so (Cappadocia, Pepler, Cummings, & Craig, 2012; Nickerson & Taylor, 2014). Gini and colleagues (2008) found a positive correlation between adolescent self-efficacy and defending the victim in a bullying situation, and a negative correlation between self-efficacy and remaining uninvolved when witnessing a bullying situation. A more recent study found that girls who reported high self-efficacy were 32 times more likely to intervene in a bullying situation than those who reported low self-efficacy (Cappadocia et al., 2012). Thornberg and Jungert (2013) also found that the self-efficacy framework set apart defender behavior from other bystander behavior and was positively associated with defender behavior. These authors argued that, even if students see the bullying occur, they may remain passive if they do not feel self-efficacious in intervening effectively (Thornberg & Jungert, 2013).

Responsibility to intervene. Another important construct that appears to influence bystander behavior in bullying situations is the belief that one has a responsibility to intervene.

Bandura (1999) outlined the concept of responsibility in his social-cognitive theory of agency. He noted that one part of moral disengagement is minimizing one's role in the situation or engaging in diffusion of responsibility (Bandura, 1999; Thornberg & Jungert, 2013). Regarding bullying bystander behavior, research has found that moral disengagement is one of the main reasons that bystanders do not intervene in a bullying situation (Thornberg et al., 2012). It appears that the motivating factor in intervening in a bullying situation is the belief that it is one's own responsibility and moral obligation to do so (Obermann, 2011). In a qualitative study that conducted a semi-structured interview with students, Thornberg et al. (2012) found that a lack of responsibility was an important factor in preventing bystanders from intervening in a bullying situation. Another study found that students who had higher levels of feeling responsible for their peers who were being victimized were more likely to intervene in the bullying episode (Ahmed, 2008).

Motivation to Intervene

As stated above, research on bullying has clearly identified two separate underlying factors that distinguish bystanders who intervene – self-efficacy and responsibility (Cappadocia et al., 2012; Nickerson & Taylor, 2014; Obermann, 2011; Thornberg & Jungert, 2013). The theoretical underpinnings that bring these two concepts together have been described by Bandura (1993, 1997b, 1999) where he proposed some of the cognitive processes that drive human behavior. In an early paper, Bandura described the importance of one feeling self-efficacious in a situation. Bandura stated that, “the stronger the perceived self-efficacy, the higher the goal challenges people set for themselves and the firmer is their commitment to them” (Bandura, 1993, p.118). As reviewed above, research has found this to be true for bystander behavior, where bystanders who feel self-efficacious when viewing a bullying situation are more likely to

be motivated to engage in intervening behavior to defend the victim (Cappadocia et al., 2012; Gini et al., 2008; Nickerson & Taylor, 2014). Bandura (1999) also proposed that moral disengagement or lack of feeling responsibility leads to diffusion of responsibility. This would suggest that if a bystander believes it is his or her responsibility to intervene they will be motivated to do so. Research on bullying has supported this concept with the finding that feeling responsible was a driving factor for bystander intervention (Ahmed, 2008; Obermann, 2011; Thornberg et al., 2012).

However, until recently, these concepts have been studied separately. Only one recent study assessed both concepts, and the results suggested that both self-efficacy and responsibility may set apart bystanders who intervene from those who do not or those who reinforce the bully. With a sample of 347 students, Thornberg and Jungert (2013) found that those who felt a responsibility in the bullying situation were more positively associated with defender behavior than those who felt less responsibility. Those who felt less responsibility were more positively associated with pro-bully behavior. In addition, they found that those who felt self-efficacious in defending the victim were more likely to do so. Additionally, those who had greater self-efficacy were negatively associated with outsider bystander behavior (i.e., those who do not engage in the situation). The authors suggested that, “in order to better explain and predict the full range of bystander behavior in bullying situations, researchers have to consider moral disengagement [responsibility] and defender self-efficacy” (Thornberg & Jungert, 2013, p. 481). These concepts have yet to be studied in conjunction with one another among urban, predominantly African American population. The current study aims to extend Thornberg and Jungert’s (2013) conceptualization of bystanders’ motivation to intervene by including both responsibility and self-efficacy, and studying which bystander characteristics (sympathy, expectation for

intervention, and prosocial behavior) predict motivation to intervene among a predominantly African American student population.

Sympathy as a Mediator

As previously reviewed, sympathy has been shown to be related to positive bystander behavior. Because sympathy plays a strong role in predicting bystander behavior and is often used in interventions that aim to reduce bullying, it is important to better understand the role of sympathy in bystander behavior. Therefore, the current study aims to investigate sympathy as a mediator between two bystander characteristics, prosocial behavior and expectations of intervention, and motivation to intervene.

Previous bystander research has indicated that prosocial behavior is related to sympathy among students who defend the victim. Nickerson and Taylor (2014) found that, among 262 fifth to 8th-grade students in the United States, students who were rated greater on sympathy were significantly correlated with greater prosocial behavior. Gini and colleagues (2007) also found similar results among 318 students of a similar age group in Italy. The results indicated that students who display prosocial behaviors associated with defending the victim of bullying were positively associated with high sympathy scores for boys and girls.

Previous studies have also established a relationship between sympathy and expectation of intervention by others. Nickerson and Taylor (2014) assessed expectation of others by asking students to rate if their peers would approve, disapprove, admire, avoid, think it was nice or student, or have nothing happen if they saw bullying occur. The researchers found that students who were rated higher on a sympathy measure were significantly related to more positive, anti-bullying expectations from peers. The current study aimed to further investigate the role of sympathy in bystander research.

Statement of Purpose

Previous research has examined bystander characteristics in exclusively non-Hispanic White, suburban populations in the U.S. and other countries. This study adds to the current literature by examining predictors of bystanders' motivation to intervene in a predominately African American sample. The first aim of the study was to investigate the factor structure of motivation to intervene using a confirmatory factor analysis. The second aim of the study was to examine whether bystander characteristics (sympathy, expectations for intervention, and prosocial behavior) predict bystander motivation to intervene in bullying situations within an urban, predominately African American context. Third, the current study examined whether gender moderates the relationship between bystander characteristics and motivation to intervene to test if this relationship is different among males and females. Lastly, the fourth aim investigated if sympathy mediates the relationship between bystander characteristics (expectations for intervention and prosocial behavior) and motivation to intervene. The rationale for examining bystander characteristics as predictors of bystanders' motivation to intervene was to gain a better understanding of which characteristics explain bystanders' motivation to intervene in this sample of students. A better understanding of these relationships will help inform interventions that aim to increase bystanders' role as interventionists in bullying situations. Investigating gender as a moderator will help researchers and practitioners gain a better understanding for how the relationship between bystander characteristics and motivation to intervene differ by gender and if interventions should be tailored differently for boys and girls.

Previous research has established that sympathy for the victim is a strong predictor for bystander intervention (Almeida et al., 2010; Gini et al., 2007; Gini et al., 2008a; Gini et al., 2008b; Nickerson & Taylor, 2014; Thornberg et al., 2012). Due to this positive relationship

found across studies, the current study also examined whether sympathy for the victim is the mediating factor between expectations for intervention and prosocial behavior, and the bystanders' motivation to intervene. Many interventions that target bullying such as Second Step, Friend to Friend, and PRAISE have a sympathy training component (Leff et al., 2007; MacEvoy & Leff, 2012; Low et al., 2015). Therefore, it was hoped that this question will help researchers and practitioners gain a better understanding of the role sympathy plays in the relationship between bystander characteristics and bystanders' motivation to intervene. If sympathy was a mediator between these relationships, then this could help to explain *why* this relationship exists. More specifically the following research questions were addressed:

1. Do sympathy toward victims of bullying, expectations for intervention, and prosocial behavior (as rated by teacher and student) predict bystanders' motivation to intervene in an urban school context (see Figure 1)?
 - i. Is the relationship between sympathy toward victims of bullying and bystanders' motivation to intervene moderated by gender?
 - ii. Is the relationship between expectations for intervention and bystanders' motivation to intervene moderated by gender?
 - iii. Is the relationship between prosocial behavior (as rated by teacher and student) and bystanders' motivation to intervene moderated by gender?
2. Does sympathy for the victim mediate the relationship between bystander characteristics and motivation to intervene (see Figure 2)?
 - i. Does sympathy for the victim mediate the relationship between expectations for intervention and motivation to intervene?

- ii. Does sympathy for the victim mediate the relationship between prosocial behavior (as rated by teacher and student) and motivation to intervene?

CHAPTER II

Literature Review

Bullying and Mental Health Outcomes

In addition to the negative impact on the victim, witnessing the bullying of a fellow peer has negative mental health effects on the bystander. Rivers and colleagues (2009) studied the impact of bullying on mental health of students who were observers to the bullying. They investigated these outcomes in 2002 students from the United Kingdom who ranged in ages 12 to 16 years old. The results indicated that observing the victimization of others may have a significant negative impact on multiple mental health indicators. Witnessing bullying also had a negative impact on psychological functioning and was related to higher levels of substance abuse. Another study investigated the impact of witnessing harassment of a peer in middle school students in the U.S. (Nishina & Juvonen, 2005, Study 1 and Study 2). The researchers found that, among 95 students who reported their daily experiences across four days, they had witnessed harassment and it was associated with increases in daily anxiety. In the second study, 97 students completed five daily reports and found that witnessing harassment lead to school dislike. Musher-Eizenman and colleagues (2004) studied children's exposure to aggression by measuring characteristics related to emotional regulation among 778 children in grades 4 – 6 from urban and suburban schools. The results showed that anxiety related to witnessing bullying was linked to aggressive retaliation from students.

Bystander Characteristics

Many studies have investigated different characteristics of bystanders and how these characteristics predict bystander intervention in bullying situations.

Gender. Gender differences have been widely studied and examined for the influences on bystander behavior. The majority of findings have shown that girls are more likely to exhibit behaviors associated with positive bystander behavior, however a couple studies have shown that boys are more likely or equally likely to exhibit positive bystander behaviors. Rigby and Johnson (2006) studied 400 Australian students to investigate factors related to being a bystander. Their results revealed that there were no significant gender differences on bystander behavior in secondary school. However, in primary schools, girls were more likely to intervene in support of the victim in verbal bullying than boys. In another study by Trach and colleagues (2010), gender differences in bystander responses were investigated by asking students how they would respond if they witnessed bullying. This study surveyed 9,397 Canadian students in grades 4 to 11. Results revealed that boys and girls equally reported that they would walk away, ignore, and avoid the bully. However, boys were more likely than girls to report they would do nothing.

In an older study by O'Connell and colleagues (1999), the authors used direct observation on the playground of 120 Canadian children in grades 1 to 6. They found that older boys, in grades 4 to 6, were more likely to actively join the bully than younger boys and older girls. They also found that both younger and older girls were more likely to intervene on behalf of the victim than older boys. This study provides a different perspective in the literature because most studies investigated these differences using self-report, whereas this study found differences using direct observation. Another study found similar findings using self-report from 318 Italian students, ages 12 to 14 years old. Boys reported higher probullying beliefs than girls, whereas girls were more associated with being a defender of the victim than boys (Gini et al., 2007).

In another study by Oh and Hazler (2009), researchers investigated bystander characteristics in 298 American students, ages 18 to 22 years attending post-secondary school

The sample consisted of majority non-Hispanic White students (93%) and African American students (5%). The participants completed questionnaires about their bullying and bystander behavior, participant role scales, and a social desirability scale. The predictors of bystander behavior that were investigated were gender, grade level, popularity, frequency of witnessing bullying, and closeness with bully and victim. Of all the predictors, gender was found to be the strongest of bystander reactions. Specifically, females were more likely to support the victims. In a similar study of younger students, Obermann (2011) investigated bystander characteristics in 660 Danish students ages 11 to 14 years old, through questionnaires that looked at active bullying involvement, bystander behavior, and moral disengagement. The results showed that girls were more likely to be defenders than boys.

In one study by Nickerson and Taylor (2014), the researchers investigated bystander characteristics in 262 middle school students, who were majority non-Hispanic White (89%), in a United States suburban and rural school. The results showed that boys reported more defending behavior than girls, which is contradictory to previous research that have shown girls are more likely to defend the victim.

Overall, the relationship between gender and bystander behavior has been investigated in previous literature. The majority of the research has indicated that females are more likely to defend or intervene on behalf of the victim in a bullying situation. However, there are a couple studies that have shown that males report equal or more defending behaviors than females (Nickerson & Taylor, 2014; Trach et al., 2010). In both of these studies, the sample was older than the sample in the proposed study. As Rigby and Johnson (2006) found that primary-aged females were more likely to intervene, there may be an age and gender interaction. Whereas younger females are more likely to intervene, gender differences may stabilize or become equal

in older students. The current study includes elementary-aged students and, as suggested by previous research, elementary-age female students may be more likely to intervene than elementary-age males.

Also indicated by the literature review, all of the studies in this area that have investigated the relationship between gender and bystander behavior have involved predominately non-Hispanic White samples of students in suburban U.S. and international settings. There is an overall gap in the literature examining this relationship in an urban school context with a predominately African American sample of students.

Sympathy. The influence of sympathy or empathy (terms are used interchangeably in the literature) on bystander behavior has shown that students who score higher on measures of sympathy tend to defend the victim in bullying situations. Gini and colleagues (2008) studied 294 Italian adolescents and evaluated peer ratings of what differentiates defenders from passive bystanders using the *Interpersonal Reactivity Index (IRI)* (Davis, 1980). The study found that girls scored higher on the sympathy measure than boys. The results also indicated that higher sympathy scores were associated with both active and passive bystander behaviors. The results also showed that the students who were nominated as defenders showed higher sympathy which lead them to perceive the victim's strife and use prosocial behaviors to help the victim (Gini et al., 2008). In another study, Gini and colleagues (2007) investigated the relationship between sympathy and helping behavior in a bullying situation. Their sample included 318 Italian students, aged 12 to 14 years old. Using the same measure of sympathy, the *IRI*, their results showed that girls had higher sympathetic concern and perspective taking than boys.

Another study, mentioned previously, by Thornberg and colleagues (2012) examined sympathetic responses by conducting a qualitative study that used an open-ended semi-structured

interview. The researchers sampled 30 American students in 4th to 8th grade and majority non-Hispanic White (73.3%) and African American (23.3%) in an urban school. The researchers found that in this sample, sympathetic reaction toward the victim may motivate bystanders to intervene. The students in the study described that they would stand up for the victim, even if they did not like them, because they felt very bad for them. The bystanders' motivation to intervene on behalf of the victim was that they felt sorry for them.

In 2008, Nickerson and colleagues examined the association between sympathy and defenders and outsiders who witness bullying in 105 American students from 6th to 8th grade who were majority non-Hispanic White (90%). The researchers used the Olweus *Empathetic Responsiveness Questionnaire (ERQ)*, (Olweus & Endresen, 1998) to measure empathy in bullying situations. They found that greater scores on this scale predicted intervening in a bullying situation. In a similar study by Nickerson and Taylor (2014) the researchers examined relationships among sympathy and bullying roles in 262 American middle school students from a suburban school. The students ranged from ages 10 to 15 years old and were majority non-Hispanic White (89%). The results showed that sympathy had a significant positive correlation with defending and an inverse significant relationship with bullying and outsider behavior. This indicates that sympathy is specifically associated with defending, rather than other bystander roles.

Cappadocia and colleagues (2012) examined sympathy toward victims in bullying situations in a sample of 108 Canadian children, ages 8 to 16 years old, who attended a summer camp. They examined their sympathetic responsiveness using a self-report measure on bullying and victimization. They found that boys who reported high levels of sympathy were about 17 times more likely to intervene in the last bullying episode that they had witnessed. They also

found that when all other variables (age, social self-efficacy, and attitudes about bullying and victimization) were considered, sympathy was no longer a significant predictor in the model.

Another study found similar findings as previous research when examining sympathy in 292 Portuguese students who were 10 to 18 years old (Almedia et al., 2010). The findings indicated that girls showed higher sympathy, while boys showed less positive attitudes toward the defender role than girls. However, sympathy did not contribute to the variance when sociodemographic and moral disengagement were considered. Similar to previous findings, there may be factors that when added, are more meaningful than empathy.

As indicated here, there is a relationship between sympathy and bystander behavior. However, all of this research has involved a predominately non-Hispanic White sample of students. Thornberg and colleagues (2012) was the only study that examined this relationship within an urban school context; however, their sample was also 73% non-Hispanic White. Therefore, there is a critical gap with examining the relationship of sympathy and bystander intervention within a predominantly African American sample in an urban school context.

Expectations for intervention. The expectations for intervention of others to intervene on behalf of the victim, specifically those who are important to the student's lives, plays an important role in how students behave. Thornberg and colleagues (2012) conducted a qualitative study by completed an open-ended semi-structured interview with 30 students in grades 4 to 8 in an urban school district, who were majority non-Hispanic White (73.3%) and African American (23.3%). Students reported that the belief that bullying is wrong and that adults, who included teachers and parents, wanted the bystanders to intervene were strong reasons that motivate them to intervene. The authors concluded that expectations of teacher and adult might add motivation to the bystanders to help victims in bullying situations.

Another study that measured social factors that influence students' position and attitude toward bullying (Rigby, 2005). This study examined these factors using self-report questionnaires completed by 400 Australian students – 200 in primary school and 200 in secondary school. The results showed that teachers were seen as having strong expectations for the students to support the victim and parents were intermediate in their beliefs. Students who believed that their friends expected them to be supportive of the victim were less inclined to bully others. However, teacher and parent expectations did not have an effect on bullying. Expectations of friends also play an important role in bystander behavior.

In a study by Rigby and Johnson (2006), 400 Australian students were given questionnaires to determine factors related to bystander behavior. The questionnaires included a *Pressure to Help Victim* scale that measured what other people expected them to do, a *Victimization* scale that measured how often they experienced bullying, a *Bullying Others* scale that measured how often they engaged in bullying, an *Attitudes toward Victims* (Rigby & Slee, 1993) scale which measured their pro-bullying beliefs, and a *Perceived Self-Efficacy* (Jerusalem & Schwarzer, 1992) scale. The researchers found that in addition to pro-victim attitude and school level, the expectations of friends was most predictive of intervening in bullying situations.

Similarly, Nickerson and Taylor (2014) examined expectations of others in 262 American middle school students and found that when girls believed their peers were pro-bullying, they were more likely to be bullies themselves, ignore bullying, or be victimized. Therefore, it is evident that expectations of others, specifically perceived peer expectations, play an important role in how bystanders behave.

Although the research literature indicates there is a relationship between the expectations of others and bystander intervention, all of this research has investigated the relationship within a

predominately non-Hispanic White sample of students. Thornberg and colleagues (2012) was the only study that examined this relationship within an urban school context, however their sample was also not very diverse, with 73% of students identifying as non-Hispanic White. Therefore, there is a critical gap with examining the relationship of expectations of others and bystander intervention within a predominantly African American sample in an urban school context.

Prosocial behavior. Prosocial behaviors, or the presence of positive behaviors that are linked to social adjustment (Crick, 1996), are important behaviors to examine in the context of bystander behaviors. Previous studies have found a relationship between displaying prosocial behavior and defending behavior. For example, in a study by Tani and colleagues (2003), the researchers examined bullying in the context of the big five personality factors. Their sample included 134 boys and 98 girls, ages 8 to 10, from elementary schools in Italy. The researchers found that defenders in bullying situations were more likely to display agreeableness, prosocial orientation, trust, cooperation, and altruism. Other studies have found that prosocial behavior is also related to empathy. For example, Gini and colleagues (2007) examined prosocial behavior and empathy in a sample of 318 Italian students who ranged in ages 12 to 14 years. The results indicated that prosocial behavior of defenders of bullying was positively associated with high empathy for both boys and girls. Another study found that among 298 American college students, females were more likely to use prosocial skills and assertive strategies than boys and that these strategies resulted in an increase in defending and helping behaviors for the victim (Oh & Hazler, 1009).

In a more recent study by Nickerson and Taylor (2014), the researchers examined the relationships between specific characteristics and bystander behavior in 262 middle school students in the United States. Their sample was 89% non-Hispanic White and ranged from 10 to

15 years old. They completed questionnaires on demographics, empathetic responsiveness, group sociometric norms, bullying roles, and prosocial affiliations. The results showed that prosocial affiliations were positively associated with defending behavior and empathetic responsiveness, and negatively correlated with bullying. Specifically, for girls, group norms and prosocial behavior predicted roles as the bully and victim, and not as the defending or outsider. Interestingly, when girls had more prosocial affiliation but more probullying peer group norms, they were likely to assume an active bullying role or outsider role. These results are different than previous research and bring to light that there may be stronger influences for certain groups of students. For this middle school, female population, their group affiliations had a stronger influence on their behavior than their self-reported prosocial affiliations.

One of the leading researchers in bystander behavior has called for “fostering prosocial skills and feelings of empathy in them [students] and lead to the acquisition of informal anti-bullying roles among their peers” (Salmivalli, 1999, p. 458).

Reasons for Not Intervening

Bystanders report many reasons for not intervening in a bullying situation. In a qualitative study, Thornberg and colleagues (2012), administered an open-ended semi-structured interview to 30 students, who were in grades 4th – 8th in an urban school context. The aim of this study was to use a qualitative approach to examine the motives reported by bystanders to intervene or not when they witness a bullying situation. The students reported that the reasons they do not intervene in a bullying situation is fear of being victimized by the bully and the audience’s excitement, which was defined as the joy and excitement to watch bullying. Another reason the students reported they did not intervene was irresponsibility or the belief that it was not their moral responsibility to get involved. Students also reported that low bystander self-

efficacy to intervene was related to not intervening because the student believed that they would not be capable to intervene. In another study of 108 Canadian students ages 8 – 16 years, the students reported that their strongest motivation for not intervening was feeling it was not their place or responsibility to get involved (Cappadocia et al., 2012). Oh and Hazler (2009) studied 298 college students in the United States and investigated the personal and situational factors that contributed to bystander reactions to school bullying. The students described the reasons they do not intervene was due to fear, not knowing what to do, or doing the wrong thing and causing more problems as a result.

Underlying Factors for Intervention

Several studies have examined the underlying factors which contribute to bystanders' motivation or intent to intervene. Researchers have found that there are two factors – self-efficacy and responsibility – as those that distinguish bystanders who defend the victim from those who do not.

Self-efficacy. Self-efficacy is the individual's belief in his/her level of functioning (Bandura, 1997). Bandura (1993) proposed the influence self-efficacy has on cognitive processes and the influence that has on behavior. Self-efficacy plays a role in how a person perceives their success or failure in a particular situation. Those with high-self efficacy will cognitively think about the scenarios that lead to success and accomplishment. Whereas those with low self-efficacy may think about all the failures that can occur if action is taking. These two scenarios lead to two different behavioral outcomes. The person with high self-efficacy is more likely to act on their cognitive thoughts of success, whereas the person with low self-efficacy may escape or avoid the situation due to thoughts of failure (Bandura, 1993, 1997).

In this case, self-efficacy is the bystander's belief or confidence in his or her behavior to stop bullying or intervene in bullying. Previous studies have shown the influence of self-efficacy on bystander behavior. For example, Gini and colleagues (2008) examined self-efficacy in 294 Italian adolescents and found that there was a positive correlation between self-efficacy and defender behavior, and a negative correlation between self-efficacy and outsider behavior. Self-efficacy beliefs positively predicted active involvement in defending behavior. The authors concluded that high empathy was not sufficient in explaining defending behavior, but self-efficacy was the component that was needed to lead to active defending (Gini et al., 2008).

As mentioned previously, in a qualitative study by Thornberg (2012), 30 students in grades 4th to 8th in an urban school were administered an open-ended semi-structured interview to investigate their motives for intervening or not intervening in a bullying episode. The authors defined intervention self-efficacy as situations in which students feel that their mode of intervention would be effective. Students reported that high self-efficacy was a motivating factor to intervene in bullying situations, whereas low self-efficacy was a motivating factor to not intervene.

Another study investigating self-efficacy among 108 Canadian children ages 8 to 16 years found that girls who reported high levels of self-efficacy were 32 times more likely than those who reported low levels of self-efficacy, to reported they intervened in the last bullying episode that they witnessed. However, for the boys in the sample, self-efficacy was not a predictor of intervening in a bullying situation (Cappadocia, Pepler, Cummings, & Craig, 2012).

Pöyhönen and colleagues (2012) studied self-efficacy among 6,397 Finnish students in 3rd to 5th grade. They found that the more efficacious the students felt about defending a victim the more likely they would defend the victim. In another study by Pöyhönen and colleagues

(2010), the researchers investigated what it would take for a bystander to stand up for the victim against bullying. The researchers examined this question in 489 Finnish students in grades 4 to 8. The study also used a specific measure of self-efficacy that asked questions about defending behavior only, not general self-efficacy. The researchers found that defending behavior was positively associated with self-efficacy for defending. The researchers concluded that it is important to study self-efficacy beliefs in the context of victim defending behavior (Pöyhönen, Juvonen, & Salmivalli, 2010).

Responsibility. As stated previously, the lack of responsibility seems to be an important factor for bystanders to not intervening in a bullying situation (Thornberg et al., 2012). Some researchers refer to a lack of feeling responsible as “moral disengagement”. Obermann (2011) defines a type of moral disengagement as minimizing personal responsibility either by claiming one is a small part of a larger group or displacing responsibility by claiming one’s problems to the circumstances. Obermann (2011) aimed to study moral disengagement, or lack of responsibility, in bystanders by studying a sample of 660 Danish students, ages 11 to 14 years old. The results showed that those who defended the victim or felt that they should defend the victim but did not (guilty bystanders), had lower levels of moral disengagement than the unconcerned bystanders. Obermann concluded that the driving factor for bystander intervention was feeling that it was their own responsibility and feeling guilty about others being bullied.

In the Thornberg et al. (2012) study mentioned earlier, the authors called this concept *bystander irresponsibility* where the bystander does not intervene because he or she does not believe it is their moral obligation to do so. In this qualitative study, students report that they do not intervene because it “is not [their] business” to do so. Therefore, a motivating reason to stay out of the bullying situation is belief it is not your responsibility to get involved. Another study

by Ahmed (2008) studied feelings of students who believe it is their responsibility to intervene in bullying situations. The researcher examined this among 1,452 Bangladesh, 7th to 8th grade students. The results showed that those who were likely to intervene in bullying episodes had higher levels of feeling responsible for their peers. Also, the results showed that passive bystanders were likely to blame others for the bullying and did not feel personally responsible. Therefore, responsibility seems to drive one's motivation to intervene in a bullying situation.

Motivation to Intervene

A recent study by Thornberg and Jungert (2013) examined linking these two concepts together – self-efficacy and responsibility – as what differentiates between bystanders who do intervene from those who do not. This study aimed to investigate how moral disengagement [irresponsibility] and self-efficacy are related to different bystander behaviors in bullying. They examined these pathways and how they are linked to pro-bully, outsider, and defender behavior in bullying situations using structural equation modeling (SEM). The researchers examined this theory among 347 students attending secondary school in Sweden. The results revealed that moral disengagement in bullying situations was positively related to probully behavior and negatively associated with defending behavior. In other words, students who felt more responsibility or moral engagement were more likely to engage in defending behavior. The researchers also found that self-efficacy was positively related to defending behavior and negatively related to outsider behavior and probully behavior. Thornberg and Jungert (2013) argue that in order to fully explain bystander behavior in bullying situations and the motivation to react differently when experiencing a bullying situation, researchers must consider moral disengagement [responsibility] and self-efficacy. The researchers state that these two concepts together help to explain what differentiates those who intervene from those who do not.

As indicated by the literature review and to further extend the theory presented by Thornberg and Jungert (2013), the current study conceptualizes bystanders' motivation to intervene as two constructs – self-efficacy and responsibility. The current study will be the first to study these two concepts together as bystanders' motivation to intervene in bullying situations. These concepts have yet to be studied in an urban school with a predominately African American student population.

Statement of Purpose

Previous research has examined bystander characteristics in exclusively non-Hispanic White, suburban populations in the U.S. and other countries. This study adds to the current literature by examining predictors of bystanders' motivation to intervene in a predominately African American sample. The purpose of the current study was to examine bystander characteristics that have been found to be predictors of bystander behavior and extend the literature by investigating whether these characteristics are associated with bystanders' motivation to intervene in a bullying situation within an urban, predominately African American context. The rationale for examining bystander characteristics as possible predictors of bystanders' motivation to intervene was to gain a better understanding of which characteristics explain bystanders' motivation to intervene in this sample of students. A better understanding of these relationships may help inform interventions that aim to increase bystanders' role as interventionists in bullying situations. Therefore, the first aim of the study was to investigate the factor structure of motivation to intervene using a confirmatory factor analysis. The second aim of the current study was to examine whether sympathy toward the victim, expectations of others, and prosocial behavior predict the motivation to intervene in bullying situations. The third aim of the study was to examine whether these factors differ across gender for students in an urban

school setting. This could help researchers and practitioners gain a better understanding for how the relationship between bystander characteristics and motivation to intervene differ by gender and how interventions should differ for students based on gender.

In order to gain a better understanding of these relationships, the fourth aim of the current study was to examine sympathy as a mediator between variables. Previous research has established that sympathy for the victim is a strong predictor for bystander intervention (Almeida, Correia, & Marinho, 2010; Gini et al., 2007, 2008; Nickerson & Taylor, 2014; Thornberg et al., 2012). Due to this positive relationship found across studies, the study also examined whether sympathy for the victim is the mediating factor between the individual characteristics, gender, expectation for intervention, and prosocial behavior and the bystanders' motivation to intervene. Many interventions, such as Second Step, Friend to Friend, and PRAISE, that target bullying have an empathy or sympathy training component (Leff et al., 2007, 2014; Van Schoiack-Edstrom, Frey, & Beland, 2002). Therefore, this question could help researchers and practitioners gain a better understanding of the role sympathy plays in the relationship between bystander characteristics and bystanders' motivation to intervene. If sympathy is a mediator between these relationships, then this may help to explain *why* this relationship exists.

CHAPTER III

Method

Participants and Setting

The sample for the current study was drawn from participants in the Preventing Aggression in Schools Everyday (PRAISE; Leff et al., 2007; Leff et al., 2010) program, a grant funded by PEW Charitable Trust focusing on a bullying prevention intervention for elementary-age students in an urban setting. Data used for the current study were collected during the first-year baseline phase, prior to the intervention being implemented. The dataset was accessed with permission from the principal investigator.

The PRAISE study involved 296 students in grades 3 through 5 located in two urban schools in the northeast. Participating schools were initially selected based on meeting the criteria that they (a) were located in south or southwest Philadelphia and (b) the student population was at least 90% African American. Next, a school district project officer selected these two specific schools due to need for bullying prevention programming. The research team subsequently contacted the principal via phone and later in person to discuss the intervention protocol. Both principals agreed to participate in the PRAISE study.

Participant Recruitment and Characteristics

The school district considered participation in this research study as a part of the curriculum and therefore, no parental consent or child assent was necessary. All youth in 3rd, 4th, and 5th grades from 12 classrooms in the two schools were eligible to participate. Of the total 326 students, 35 did not have complete data due to truancy, absence, or transferring in or out of the school. In total, a sample of 291 students (51.2% male and 48.8% female), ranging in age from 8 to 12 years old (mean 9.4 years) was used for the current study. A total of 60% of the sample

were in 4th grade, 20% in 3rd grade, and 20% in 5th grade. A majority of students identified themselves as African American (53.0%) or Asian (19.6%). Other ethnicities represented included Hispanic (5.4%), non-Hispanic White (4.4%), and Other (13.9%).

Measures

Two types of data were analyzed in this study: (a) student self-report measures that were administered to each class by facilitators from the PRAISE intervention team who read each question aloud to the class; and (b) teacher-completed surveys for each student in their class.

Peer Sympathy Scale (PSS; MacEvoy & Leff, 2012). The *PSS* is a 15-item rating scale used to measure student sympathy for peers who are targets of aggression and was created specifically for an urban African American sample. Scale development involved utilizing feedback from key stakeholders through Participatory Action Research (PAR) (Nastasi et al., 2000) to create a psychometrically- and empirically-sound measure that is culturally sensitive (MacEvoy & Leff, 2012). More specifically, creation of the *PSS* involved, first, reviewing existing measures of children's concern for others and aggression and then meeting with urban African American youth to ensure that items were understandable and applicable to them. Participants were then interviewed by trained research assistants and asked open-ended questions about sympathy (i.e., "What does it mean to feel bad for someone?"). The final scale consisted of 12 test items and 3 filler items, and participants rate how badly they would feel for a peer who was the target of aggression by another peer (i.e., "When somebody else pushes another kid on the ground.") using a 5-point Likert scale ranging from "Not Bad at All" (1) to "Really Bad" (5). Scores were summed, with total possible scores range from 12 to 60, with higher scores indicating greater sympathy toward victimization. The *PSS* has been shown to have high internal consistency ($\alpha=.92$) and high test-retest reliability ($r=.80$). The *PSS* also has been shown to have

high validity by demonstrating students who scored high sympathy on the *PSS* had less overt and relational aggression and had related social behaviors as rated by the teacher (MacEvoy & Leff, 2012).

Expectations for intervention. (Bradshaw, Sawyer, & O’Brennan, 2007). For the purpose of this study, expectations for intervention were assessed using two items from prior Web-based survey studies which was completed by students and school staff that assessed their experiences with bullying, beliefs about aggressive retaliation, and perceptions of bullying (Bradshaw et al., 2007). The authors stated that the items in the Web-based survey “were based on a previously developed measure of aggression and school climate (Institute of Behavioral Science, 1990) and on questions commonly used in research on bullying (Nansel et al., 2001; Solberg & Olweus, 2003) and attitudes toward retaliation (Huesmann, Guerra, Miller, & Zelli, 1992)” (Bradshaw et al., 2007, p. 364). Because there were only two items, psychometric properties could not be reported.

The first item asks students for their expectations for the likelihood that a staff member would intervene in a bullying situation; the second item asks if a fellow student would intervene (i.e., “Adults [or students] at this school try to stop bullying”). Students responded on a 4-point Likert scale ranging from “Strongly Agree” (1) to “Strongly Disagree” (4). Items were reversed coded and summed so that higher values indicated a greater agreement that adults and students intervene with bullying.

Children’s Social Behavior Questionnaire (CSB and CSB-T; Crick et al., 2005; Crick, 1996; Crick & Grotpeter, 1995). Prosocial behavior was measured using the student self-report form (*CSB*) and the teacher form (*CSB-T*). The *CSB* self-report contains 15 items – 7 items assess relational aggression, 4 items assess overt aggression, and 4 items assess prosocial

behavior. The current study used the prosocial subscale of this measure. For each item, the student was given a statement and asked, “How often do you do this?” Student were able to respond from “Never” (1) to “All the time” (5). Higher scores indicated greater relational aggression, overt aggression, and prosocial behavior. Similarly, the *CSB-T* was completed by the teacher for each student. The scale was created to measure teacher ratings of children’s social behavior and social adjustment. Similar to the *CSB*, the *CSB-T* consists of a total of 15 items – 7 items assess relational aggression, 4 items assess overt aggression, and 4 items assess prosocial behavior. The current study used the prosocial subtest of this measure. This *CSB-T* was designed to be parallel to the *CSB*. The teachers rated each student on a scale from, “This is never true of this child” (1) to “This is almost always true of this child” (5), with higher scores indicating greater relational aggression, overt aggression, and prosocial behavior for each subscale.

Both scales were constructed based on teacher and children interviews and previous measures of children’s behavior (Crick & Grotpeter, 1995). Both the *CSB* and *CSB-T* have demonstrated strong psychometric properties for use with urban, ethnically-diverse youth (Crick, 1996). All three subscales on the *CSB-T* have shown to be internally consistent – relational aggression ($\alpha=.94$), overt aggression ($\alpha=.94$), and prosocial behavior ($\alpha=.93$) scales. All three subscales on the *CSB* have shown to be internally consistent – relational aggression ($\alpha=.82$), overt aggression ($\alpha=.66$), and prosocial behavior ($\alpha=.76$) scales. Large effect sizes have been found in a recent school-based study with urban youth ($d > 1.0$) (Leff et al., 2010).

The current study used the Prosocial subscales of both the *CSB* and *CSB-T*. The Prosocial subscale of the *CSB* consists of 4 items such as, “Some kids say or do nice things for other kids. How often do you do this?” Students respond on a 5-point Likert scale from “Never” (1) to “All the time” (5). The *CSB-T* Prosocial subscale consists of 4-items such as, “This child is kind to

peers” and the teacher is asked to rate on a 5-point Likert scale from “Never True” (1) to “Almost Always True” (5). Scores are averaged, with total possible scores range from 1 to 5, with higher scores indicating greater prosocial behavior. The prosocial subscale has shown high reliability for both the *CSB-T* ($\alpha=.93$) and the *CSB* ($\alpha=.76$).

Bystander motivation to intervene. Bystander motivation to intervene scale consisted of four items, two of which ask the student about their self-efficacy to intervene (e.g., “If I saw bullying, I’m sure I would be able to stop it.”) and two items which ask the student about their responsibility to intervene (e.g., “It is my responsibility to help classmates who are repeatedly teased, hit, or left out.”). Students were asked to report how strongly they agreed with each item on a 4-point Likert scale from “Strongly Disagree” (1) to “Strongly Agree” (4). Bystander self-efficacy items were adapted from Thornberg and Jungert (2013) who reported a correlation between the two items ($r=.62$). The responsibility items were created by the Principal Investigators of the larger study (Leff et al., 2010). As described below, bystander motivation to intervene will be displayed as a latent construct with four indicators that make up the four items on this scale.

Procedures

A research team from the Children’s Hospital of Philadelphia (CHOP) collected program assessments from all participating students and teachers, both prior to and after the PRAISE program was successfully implemented. The current study only used baseline data collected prior to the intervention implementation. The CHOP research team consisted of psychology graduate students and CHOP research assistants. Facilitators received specific training by licensed psychologists on how to administer measures and were provided a script to read for each set of assessments. Specifically, student self-report measures were administered to the each class;

facilitators from the intervention team administered each assessment by reading each question aloud to the class. While one research assistant read the script aloud, other staff members walked around the classroom to help students who needed additional assistance and to make sure items were completed correctly, by examining if the student was answering the item that the researcher had read aloud. After administration, measures were checked to make sure it was completed correctly. Teachers filled out individual surveys for each child.

Data Analytic Plan

As a preliminary analysis, a Confirmatory Factor Analysis (CFA) was conducted to determine if the hypothesized structure for the “motivation to intervene” latent variable exists as supported by the literature. This was conducted using AMOS 24 with “motivation to intervene” displayed as a latent construct with four indicators, which are the two items that measure responsibility and the two items that measure self-efficacy (See Figure 3, model A). A second CFA was conducted to determine if a two factor model exists. This was done by displaying “responsibility” and “self-efficacy” as the latent constructs with two indicators each, which are the two items that measure responsibility and the two items that measures self-efficacy (See Figure 3, model B).

Proposed Model. A structural equation model (SEM) using AMOS 24 was used to answer each of the research questions in the current study. SEM was used because the purpose of the proposed study is to identify predictors of a latent dependent variable from several independent or predictor variables (Schumacker & Lomax, 2010). First, SEM was used to determine which variables (sympathy, expectations for intervention, and prosocial behavior) predict the outcome variable of bystanders’ motivation to intervene (See Figure 1). Bystanders’ motivation to intervene was operationalized as a latent construct with four indicators, two items

measuring responsibility and two items measuring self-efficacy. A summed score was used for the two exogenous variables in the model (sympathy, expectations for intervention) and averaged for prosocial behavior.

A multi-group analysis using AMOS 24 was used to test if gender moderates the relationships between the predictor variables and the latent dependent variable. Two separate models, one for males and one for females, were analyzed simultaneously. Results for both groups (female and male) were examined as well as the difference between the two groups, which was examined in the nested model comparison. The nested model constrained the four predictive paths to be equal for males and females; the fit of this constrained model was compared to the unconstrained model allowing the four predictive paths to be estimated separately for males and females.

An SEM uses the following steps: model specification, model identification, model estimation, model testing, and model modification (if necessary) (Schumacker & Lomax, 2010). In order to determine how well the model fits the data, both global and incremental fit indices was examined. Criteria to determine model fit was selected a priori as follows: nonsignificant chi-square to test global fit, RMSEA less than .05, CFI greater than .95, GFI greater than .95, and TLI greater than .95 (Browne & Cudeck, 1993; Hu & Bentler, 1999). However, a significant chi-square was expected due to the sensitivity of chi-square with large samples.

There are important assumptions that must be met for the model for the current study. The multivariate normality assumption was checked using SPSS 24; skewness should fall within the suggested range of -2 to +2, and kurtosis values should fall within the suggested range of -7 to +7 (Curran, West, & Finch, 1996). Another assumption that must be met is that each predictor has a linear relationship with the outcome variable. This was assessed using a scatterplot and

correlation matrix. Scatterplot should indicate an elliptical shape of a linear relationship (Stevens, 2009). All of these assumptions were examined in the current study.

Second, to determine whether sympathy for the victim mediates the relationship between expectation for intervention and bystanders' motivation to intervene, a mediation analysis was conducted using bootstrapping in AMOS 24 to generate the standard errors and significance test for the indirect effects (See Figure 2). As recommended by Hayes (2009), 5000 samples and a 95% confidence interval bias-corrected method was used. Indirect, direct, and total effects were estimated and tested for statistical significance based on the bias-corrected method to determine mediation. A second and separate mediation analysis was conducted in the same way to test if sympathy for the victim mediates the relationship between prosocial behavior and bystanders' motivation to intervene (See Figure 2).

Alternative Model

In order to further investigate the relationship between these variables, the alternative model tested if the model fits better by explaining motivation to intervene as two factors – responsibility and self-efficacy (See Figure 4). This is an extension of the preliminary findings of the CFA, which indicated excellent model fit for the two-factor model. The alternative model investigated the second aim of the study by investigating the bystander characteristics that predict responsibility and self-efficacy using a structural equation model analysis. The difference is that motivation to intervene was displayed as two factors. Specifically, responsibility was operationalized as a latent construct with two item-level indicators, and self-efficacy was also operationalized as a latent construct with two item-level indicators. Predictive paths were estimated from the bystander characteristics (sympathy, expectation for others, and prosocial

behavior) to both latent constructs – responsibility and self-efficacy – on the endogenous side of the model (See Figure 4).

Chapter IV

Results

Confirmatory Factor Analysis (CFA)

A CFA was conducted to determine the factor structure of the hypothesized latent construct “motivation to intervene,” which was comprised of two observed concepts, responsibility (2 indicators) and self-efficacy (2 indicators), as supported by the literature. The model fit indicated poor fit ($\chi^2(2) = 14.103$, $p = .001$; RMSEA = .114; CFI = .937; TLI = .811; GFI = .975) (See Figure 3a). In order to improve model fit, modification indices were examined. Modification indices were requested and examined from the highest to lowest modification index parameter change. The indices that did not have theoretical support were eliminated. The results showed that model fit would improve if the error variances of the two items measuring self-efficacy were correlated (M.I. Parameter Change = 10.729). Since these items are similarly worded and measure the same concept, it made theoretical sense that the error variances would need to be correlated; therefore this modification was added to the model. This improved model fit to: $\chi^2(2) = .126$, $p = .722$, RMSEA = .000, CFI = 1.00, TLI = 1.027, GFI = 1.00, indicating excellent fit of the model to the data.

A second CFA was conducted to determine if a two-factor structure fit better than the one-factor structure. In this CFA, the first latent factor “responsibility” had two indicators, which were the two items that measured responsibility, and the second latent factor of “self-efficacy” had two indicators, which were the two items that measured self-efficacy (see Figure 3b). This model indicated excellent fit to the data fit ($\chi^2(2) = .126$, $p = .722$; RMSEA = .000; CFI = 1.00; TLI = 1.027; GFI = 1.00).

Although the two-factor model had better fit, the one-factor model was chosen for the current analyses for several reasons. First, the one-factor model is theoretically supported by the literature, which indicates that responsibility and self-efficacy are the components that motivate students to intervene in bullying situations (Cappadocia et al., 2012; Nickerson & Taylor, 2014; Obermann, 2011; Thornberg & Jungert, 2013). Secondly, the one-factor structure had identical fit once the modification of correlating the error terms between the self-efficacy items was made. Schumacker and Lomax (2010) indicated that correlating error terms is a reasonable choice given that the items were measured with the same method and measure the same construct. The two items that were correlated share variance in that they both measure the same construct of self-efficacy and they are both measured the same way, on a 4-point Likert scale, which is completed by the same rater. Finally, another reason the one-factor model was chosen was because it meets the recommended amount of indicators suggested by Schumacker and Lomax (2010). The authors recommend having three to four indicators per latent variable. As a result, the alternative structural equation model shown in Figure 4 was not estimated.

Structural Equation Model

Model Estimates. Bivariate correlations were calculated for all variables in the final model. All correlations, means, standard deviations, skewness, and kurtosis estimates are displayed in Table 1. All of the skewness and kurtosis estimates fell in the appropriate range; skewness fell within the suggested range of -2 to +2, and kurtosis values fell within the suggested range of -7 to +7 (Curran et al., 1996).

Model Fit. Regarding the second aim of the study, the proposed model investigated the bystander characteristics related to motivation to intervene (See Figure 1). The proposed model fit the data very well ($\chi^2 = 11.804$, $p = .544$; RMSEA = .000; CFI = 1.00; TLI = 1.009; GFI =

.990); the alternative model (See Figure 4) did not fit the data as well as the proposed model ($\chi^2 = 41.305$, $p < .001$; RMSEA = .104; CFI = .895; TLI = .706; GFI = .968). Since the proposed model fit the data very well and met the *a priori* fit criteria, the proposed model was determined to be an acceptable representation of the data and was chosen for further analyses. In the proposed model, sympathy ($p < .001$) and expectation for intervention ($p < .001$) positively predicted motivation to intervene. Teacher-rated ($p = .551$) and student-rated ($p = .117$) prosocial behavior did not significantly predict motivation to intervene.

Moderation. A moderation analysis was conducted using a multi-group analysis to test if gender moderates the relationships between the predictor variables and motivation to intervene. Two separate models were set up for males and females using the grouping variable of gender, and these models were tested simultaneously. This was done by constraining the four predictive paths to be equal for males and females in the first model, and allowing them to be freely estimated in the second model. The nested model comparison indicated that there were no significant differences between the two models ($\Delta\chi^2(4) = 4.724$, $p = .317$). This indicates that there are no differences between the default model which constrained the paths to be equal across gender and the moderation model which allowed them to be freely estimated. Therefore, there were no gender differences found in these paths.

Mediation. Bootstrapping analysis was used to test for the hypothesized mediation in the final model (see Figure 2a, 2b, 2c). As recommended by Hayes (2009), 5000 samples and a 95% confidence bias-corrected method was used. Indirect, direct, and total effects were estimated and tested for statistical significance based on the bias-corrected method to determine mediation (See Table 2a). Sympathy did not fully mediate the relationship between expectation for intervention and motivation to intervene. The direct effect of expectation for intervention on sympathy (the

mediator) was significant ($p = .012$) and the direct effect of sympathy on motivation to intervene was also significant ($p = .016$). The direct effect of expectation for intervention on motivation to intervene was significant (.228, $p=.004$) controlling for sympathy and was not substantially reduced relative to the total effect of expectation for intervention and motivation to intervene (.277, $p=.007$). The indirect effect between expectation for intervention and motivation to intervene through sympathy was significant ($p=.014$) (see Figure 2a). However, because of the significant indirect and total effect between expectation for intervention and motivation to intervene, a partial mediation exists between these two variables. Gunzler and colleagues (2013) describe partial mediation as a significant relationship between the independent variable with the dependent variable after the mediator is introduced, which is the case in the current model.

Sympathy did not mediate the relationship between teacher-rated or student-rated prosocial behavior and motivation to intervene (See Figure 2b, 2c). The direct effects of teacher-rated ($p = .077$) and student-rated ($p=.961$) prosocial behavior on sympathy (the mediator) were not significant, though the direct effect of sympathy on motivation to intervene ($p = .015$) was significant. The direct effect of teacher-rated (.096, $p = .297$) and student-rated (.071, $p = .644$) prosocial behavior on motivation to intervene was not significant when controlling for sympathy in the model. Furthermore, the direct effect was not substantially reduced relative to the total effect of teacher-rated (.147, $p = .123$) and student-rated (.084, $p = .669$) prosocial behavior on motivation to intervene. The indirect effect between teacher- ($p = .110$) and student- ($p = .961$) rated prosocial behavior and motivation to intervene through sympathy was not significant.

Chapter V

Discussion

The current study aimed to investigate predictors of bystanders' motivation to intervene in a bullying situation among elementary school students in an urban school district. The literature in this area has focused exclusively on studying predictors of bystander roles and behaviors among non-Hispanic White suburban populations in the U.S. and in international countries. The current study fills a current gap in the literature by investigating characteristics that may predict bystanders' motivation to intervene in a bullying situation among predominantly African American students in a large urban district in the U.S.

The first research question examined whether sympathy, prosocial behavior as rated by the teacher and student, and expectations for intervention predicted motivation to intervene. Sympathy and expectation for intervention significantly predicted motivation to intervene. Students who endorsed greater feelings of sympathy had greater motivation to intervene in a bullying situation. Previous studies have found similar findings that indicate that students who reported higher levels of sympathy also endorsed more defending behaviors (Nickerson & Taylor, 2014). A recent review of the literature by van Noorden and colleagues (2014) found that sympathy and positive bystander behaviors, such as defending the victim, were consistently and positively related to one another. The current study found that this was also the case in an urban school district among a culturally diverse group of students.

Expectation for intervention was also positively associated with motivation to intervene. Students who endorsed that their peers and adults had an expectation to intervene in bullying situations also had greater motivation to intervene. This is a normative believe that adults and other students intervene and thereby influencing the bystanders' behavior. Thornberg and

colleagues (2012) found that bystanders were more likely to intervene in bullying situations if they thought their parents and teachers believed that bullying was wrong and expected them to intervene. Research has also found that peers have an influence on bystanders. Rigby and Johnson (2006) found that students who had friends who expected them to support the victim were more likely to intervene on behalf of the victim. Nickerson and Taylor (2014) found that expectations from friends whether to support the victim or not had an effect on bystander behavior to join the bullying or support the victim. The current study extends these findings to an urban school district with predominantly African American students. Unlike previous research, the current study examined bystanders' motivation to intervene, rather than self-report measures that examined bystanders' behavior, thereby measuring the underlying factors that motivate students to intervene rather than their report of previous or future likelihood of intervention. These findings suggest that expectations of important adults and peers in the students' life influence their motivation to intervene when witnessing bullying happen in school. This may also be influenced by the environment in which the current study took place (i.e., a low income, under-resourced school district), where safety is the main concern for most students and therefore the expectation that it is acceptable to do so by adults and peers may influence bystanders' feelings of safety to do so. This feeling of a need for safety may then impact their motivation to intervene. Future research should investigate the construct of safety in an urban school environment and its influence on bystander motivation to intervene.

Prosocial behavior as rated by the student and teacher did not predict motivation to intervene in bullying situations. Many previous studies have found that prosocial behavior is a positive predictor of positive bystander behavior (Gini et al., 2007; Nickerson & Taylor, 2014; Tani et al., 2003). However, the current study suggests that prosocial behavior is not related to

motivation to intervene among students from an urban school district. This was the case for both teacher rated prosocial behavior of their students and students self-rated prosocial behavior. Nickerson and Taylor (2014) found that other factors may influence bystander behaviors more so than prosocial behavior. In their sample, they found that girls who had more prosocial affiliations but a peer group who supported bullying were more likely to engage in active bullying. The researchers suggest that other influences may be more important for specific groups of children. In Nickerson and Taylor's (2014) study, middle school female students were more influenced by their friends' probullying attitudes than the prosocial affiliations. Further research is needed to test which factors are more important to students in the current sample and influence motivation to intervene. Another important note is that student-rated prosocial behavior and teacher-rated prosocial behavior were not significantly correlated with one another, suggesting that teachers and students rated themselves differently on these measures. The mean scores suggested that students rated themselves lower than teachers did; however, both had low ratings in general. This may be the reason why prosocial behavior was not related to motivation to intervene in the current population.

The current study also examined if there were gender differences in any of the relationships of the predictors (sympathy, expectation for intervention, and prosocial behavior) to the outcome, motivation to intervene. The current study found that gender did not moderate the relationship between these predictors and motivation to intervene, meaning that there were no differences between males and females in these predictive relationships. Many previous studies have found that gender was a strong predictor of how bystanders react in a bullying situation. For elementary aged students, females have been found to be more likely to defend a victim in a bullying situation, while males have been found to be more likely to reinforce bullying

(Cappadocia, 2012; Gini et al., 2008; Oh & Hazler, 2009). In an older study, O'Connell and colleagues (1999) used direct observation of students on the playground and found that younger boys were less likely to be active bullies than older boys and older and younger girls were more likely to intervene on behalf of the victim. Previous research has examined gender differences in predominantly non-Hispanic White samples in suburban communities in the U.S. or international settings. Although there is no current research to compare age and race differences among bystanders in bullying situations, the current study found that gender differences do not exist when examining the relationship between bystander characteristics and motivation to intervene among elementary school students from an urban school district. Previous research has shown mixed results for older students in middle and secondary education, with some research showing no gender differences. It may be the case that gender differences among students from urban school districts exist for older students rather than elementary-aged students. Another possibility is that aggression or hostile attribution bias may be overriding this relationship between gender and motivation to intervene. In an environment where safety is a big concern for students, they may perceive intervening as an aggressive reaction, regardless of gender. The current study did not examine aggression or hostile attribution in the model, but it would be beneficial for future research to examine these factors as they relate to motivation to intervene. Future research is also needed to better understand gender roles among elementary-aged bystanders from urban schools.

In the current literature, researchers and interventionists have put a strong emphasis on the role of sympathy and sympathy training for bystanders. Therefore, the third research question of the current study investigated sympathy as a mediator between each of the predictors and motivation to intervene. The current study found that sympathy did not mediate the relationship between prosocial behaviors and motivation to intervene. Although sympathy was a significant

predictor of bystanders' motivation to intervene, it did not explain the relationship between prosocial behavior and motivation to intervene. Because prosocial behavior did not emerge as a significant predictor of bystanders' motivation to intervene, it would not be expected that sympathy would mediate this relationship because a direct relationship between the two variables would have had to exist first (Hayes, 2009).

Interestingly, expectation for intervention was a significant predictor of bystanders' motivation to intervene; however, this relationship was not fully mediated by sympathy. However, because the indirect effect was significant, a partial mediation may exist here. That is, sympathy may partially, but not fully, explain why the relationship between expectation for intervention and motivation to intervene exists. This is evident in the significant relationship that existed between expectation for intervention and motivation to intervene, even after sympathy was introduced in the model. Therefore, we know that sympathy plays a role between these two variables, but does not fully explain why they hold a positive relationship. This may be because of the differences between expectation of others, which is an external factor that exists in the environment and sympathy which is an internal factor and individual to each student. Having sympathy towards victims of bullying does not necessarily explain why there is a relationship between peer and adult support for intervention and motivation to intervene. These may be two separate, but important, constructs in the model that explain what motivates bystanders to intervene in the current sample.

In sum, the current study suggests that sympathy and expectation for intervention from adults and peers are important predictors for bystanders' motivation to intervene in a bullying situation among elementary aged students in an urban school district. These two characteristics have a significant relationship with students' motivation to intervene in an urban school district.

The current study also highlights the differences between previous research among students from a suburban school district and students from an urban school district. Previous research has found that prosocial behaviors predict bystander behavior and that gender differences exist among suburban youth, while this study did not similar findings among urban youth. The current findings can help inform anti-bullying interventions and prevention efforts for youth from urban communities and highlight the important predictors to increase students' motivation to intervene when they see aggression occur among their peers.

Implications for Practice

The findings of the current study highlight the importance of sympathy as a predictor of students' motivation to intervene in a bullying situation. Many intervention programs that are aimed at reducing bullying in elementary schools include a sympathy training component (Leff et al., 2007; MacEvoy & Leff, 2012; Low et al., 2015). The current study suggests that sympathy training and increasing sympathy toward victims of bullying may help increase bystanders motivation to intervene. MacEvoy and Leff (2012) found that sympathy training is an important part of aggression intervention and prevention programs. They found that among students from urban schools, their feelings of sympathy were significantly related to their engagement of overt and relational aggression. The authors conclude that increasing children's sympathy is an essential component of reducing aggression in schools. Nickerson and colleagues (2008) found similar results to the current study - bystanders who intervened in bullying situations reported higher levels of sympathy. The authors emphasize the importance of sympathy training in prevention programs. An example of this is the Promoting Alternative Thinking Strategies (PATHS), a prevention program aimed at reducing aggression by teaching children to emotional understanding, self-control, and interpersonal problem solving skills. One of their outcomes is

increasing empathy for others (Greenberg, Kusche, Cook, & Quamma, 1995). Another large scale social-emotion curriculum is Second Step®, which is used across schools in the United States, uses empathy training as one of their main components. Second Step® has been found to increase empathy among students who received the program when compared to students who did not receive Second Step® (Low et al., 2015). Empathy training includes helping students understand how someone else is feeling by looking at face and body clues, the other person's point of view, how they may feel, how you can help, and kind things to say (The Committee for Children, 1986).

The findings of the current study also highlight the importance of create a school culture that sets the expectation for intervention when bullying occurs. The current findings suggest that the expectation of peers and adults in the school predict motivation to intervene for bystanders. Espelage and Swearer (2004) proposed examining bullying and intervention development in the context of a social-ecological framework and that there are many difference systems that influence the bullying context. The school climate, based on the expectations that others set, may help support or deter bystanders from intervening. This finding is particularly important in urban schools since previous research has found that students who display aggression in urban schools have increased perceived popularity and leadership (Waasdorp et al., 2013), and therefore can shift the school climate and reinforce aggressive behaviors among students. The current study suggests that when adults and peers set the expectation that intervening is important, bystanders are more motivated to intervene on behalf of the victim, thereby shifting the school climate.

Limitations and Future Directions

The findings of the current study should be interpreted in light of the study's limitations. First, the one-factor model of motivation to intervene was chosen for the analyses of this study

rather than the two-factor model of responsibility and self-efficacy. The one-factor model was chosen because it is theoretically supported by the literature, which indicates that responsibility and self-efficacy are the components that motivate students to intervene in bullying situations (Cappadocia et al., 2012; Nickerson & Taylor, 2014; Obermann, 2011; Thornberg & Jungert, 2013). However, it had identical fit to the two-factor model once the modification of correlating the error terms between the self-efficacy items was made. Correlating the error terms is supported in the literature because the items were measured with the same method, construct, and rater, and this specification of the latent variable had the recommended amount of indicators (Schumacker & Lomax, 2010). However, it is unknown whether the two-factor model would have been a better explanation of the data. One future direction is to collect more data in order to examine which model is a better fit, the one-factor or two-factor model. It is important to further investigate if motivation to intervene is comprised of responsibility and self-efficacy as it is supported in the literature or if they are two separate constructs. Furthermore, future research may investigate if motivation to intervene is made up of additional factors as well, such as sympathy. Presently, it is unknown if sympathy should be considered one of the factors that makes up motivation to intervene. Finally, future research should investigate whether correlating the error terms of the two self-efficacy items could be replicated with a larger sample to determine if this modification was sample-specific or if it generalizes to the population of students from urban backgrounds.

Another limitation of the current study is that some of the measures had very few items, such as expectation for intervention and motivation to intervene. Due to this limitation, psychometric properties could not be calculated and therefore the reliability of these measures is unknown. This calls into question the reliability of these measures across raters and items.

A school district officer selected schools to be included in the study based on need for a bullying prevention program. When the schools were selected, one school was not able to partner with the principal investigators because the school was not responsive. This may be a limitation because it is unknown what the characteristics of that school influenced them not to participate in the larger study.

Another limitation of the current study is that actual bystander behavior was not measured, rather students' motivation to intervene was measured. This may not directly translate to defending behavior when a bullying episode occurs. One important future direction is to investigate whether motivation to intervene is directly linked to actual intervention by students when bullying arises. This may be done by conducting a direct observation of behavior during social interactions at school.

Finally, it is important to note that the current study only included data at one time point, before the prevention program occurred. Therefore, causation cannot be assumed from these data. Causation can only be determined if the experimental design included a temporal difference between the bystander characteristics (*predictors*) and motivation to intervene (*outcome*). As a result, only associations between bystander characteristics and motivation to intervene can be assumed. Since this is pre-intervention data, we may assume that sympathy is a trait that the participants previously had from their cultural and environmental experiences. Therefore, a future direction may examine if sympathy is a moderator between these variables. For example, participants with more sympathy versus participants with less sympathy may differ on the relationship between bystander characteristics and motivation to intervene.

The significant indirect finding that sympathy partially mediated the relationship between expectation for intervention and motivation to intervene could be investigated further using an

analogue design that replicates real life vignettes or videos, to test sympathy specifically related to victimization. The current data were collected prior to intervention. However, it would be interesting to further investigate if sympathy is impacted by an intervention and if this affects the mediational model. This may also be used to investigate adult and peer expectations in the situations that are contrived in videos or vignettes. This may help strengthen the expectation for intervention construct to specifically look at victimization and the factors that influence them.

Another future direction may be to examine expectation for intervention separately for adults and for peers. Students may be influenced by their peers' normative beliefs more (or less) than adults' normative beliefs about bullying and intervention. Future research may be able to investigate this construct separately for the two groups and note how it relates to motivation to intervene. The current study did not investigate these relationships among group status in the bullying context, such as the differences between bullies, victims, and bystanders. These identifications may have different levels of sympathy and expectation for interventions based on their group affiliation. Future research could investigate these relationships among group affiliation as the moderator.

Conclusions

Most bullying occurs in schools and has been found to have detrimental mental health effects on all students involved (Bradshaw et al., 2007; Salmivalli et al., 1996). Students living in an urban, low-income environment are especially vulnerable to aggression due to the many external risk factors that exist in these environments (Pouwels & Cillessen, 2012). Researchers have suggested that there is a strong need for prevention services that target aggressive behavior in urban schools at an early age (Waasdorp et al., 2013). Bystanders make up about 80% of students present in a bullying situation and have been found to have an influence by either

reinforcing the bully or intervening on behalf of the victim (Farmer et al., 2012; Hawkins & Pepler, 2001). The current study aimed to investigate bystander characteristics that are related to motivation to intervene in an urban school district. The findings suggest that sympathy and expectation of intervention by peers and adults positively predict bystanders' motivation to intervene. These findings can help guide prevention efforts in urban school districts and increase bystander motivation to intervene by using sympathy training and creating a positive school climate where intervention efforts are expected by all students.

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Table 1. *Correlations and descriptive statistics for variables in the model (N =291).*

Factor	Variable	1	2	3	4	5	6	7	8
Motivation to Intervene	1.Self-Efficacy 1	--							
	2.Self-Efficacy 2	.407**	--						
	3.Responsibility 1	.337**	.312**	--					
	4.Responsibility 2	.340**	.293**	.496**	--				
Prosocial-Student	5. CSB	.050	.102	.018	.001	--			
	6.TCSB	.033	.054	.074	.104	-.241**	--		
Prosocial-Teacher Sympathy Expectation for Intervention	7. Sympathy Pre	.261**	.255**	.363**	.247**	.015	.088	--	
	8. Climate Sum	.170**	.211**	.225**	.258**	-.179**	.134	.148*	--
	Mean	3.04	3.08	3.02	2.98	2.20	3.32	45.26	6.20
	Standard Deviation	.897	.869	.921	.952	.567	.904	10.48	1.53
	Skewness	-.687	-.756	-.681	-.665	1.05	.010	-1.01	-.684
	Kurtosis	-.277	-.036	-.357	-.465	1.97	-.436	.536	-.152

** $p < .01$; * $p < .05$

Table 2. *Bootstrapped estimates of standardized total, direct, and indirect effects on motivation to intervene.*

Factor	Total	Direct	Indirect
<i>Outcome: Motivation to Intervene</i>			
Expectation for intervention	.277**	.228**	.049*
Prosocial-Teacher	.147	.096	.051
Prosocial-Student	.084	.071	.014
<i>Outcome: Sympathy</i>			
Expectation for intervention	1.01**	1.01*	--
Prosocial-Teacher	1.02	1.02	--
Prosocial-Student	.269	.269	--

** $p < .01$; * $p < .05$

Figure 1. Proposed Structural Equation Model

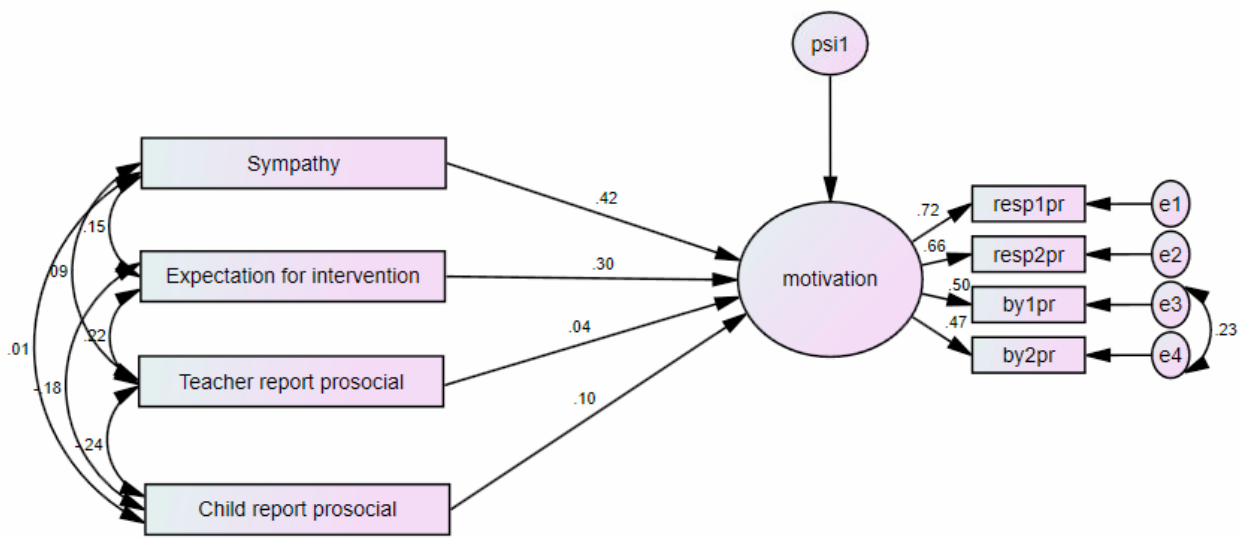


Figure 2a. Mediation Model of Expectation for Intervention

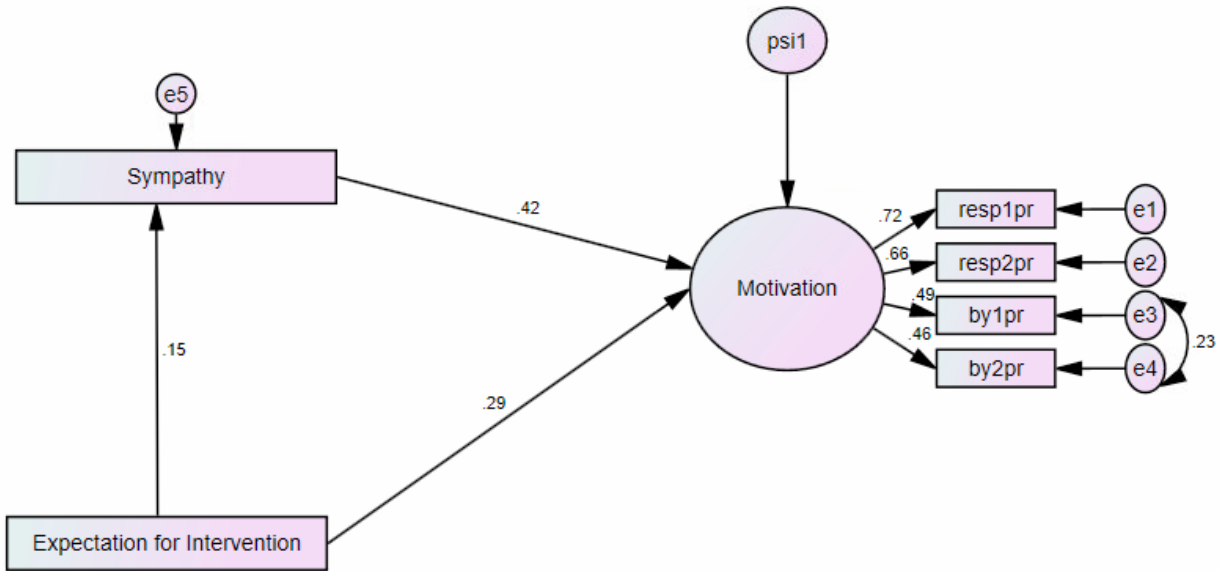


Figure 2b. Mediation Model of Student-Rated Prosocial Behavior

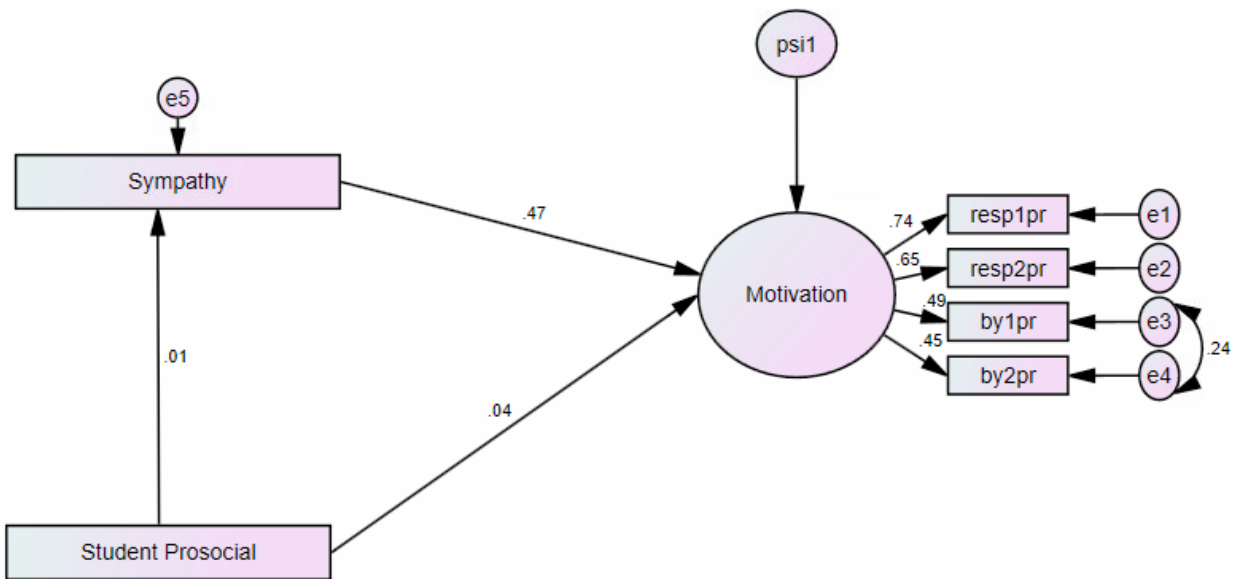


Figure 2c. Mediation Model of Teacher-Rated Prosocial Behavior

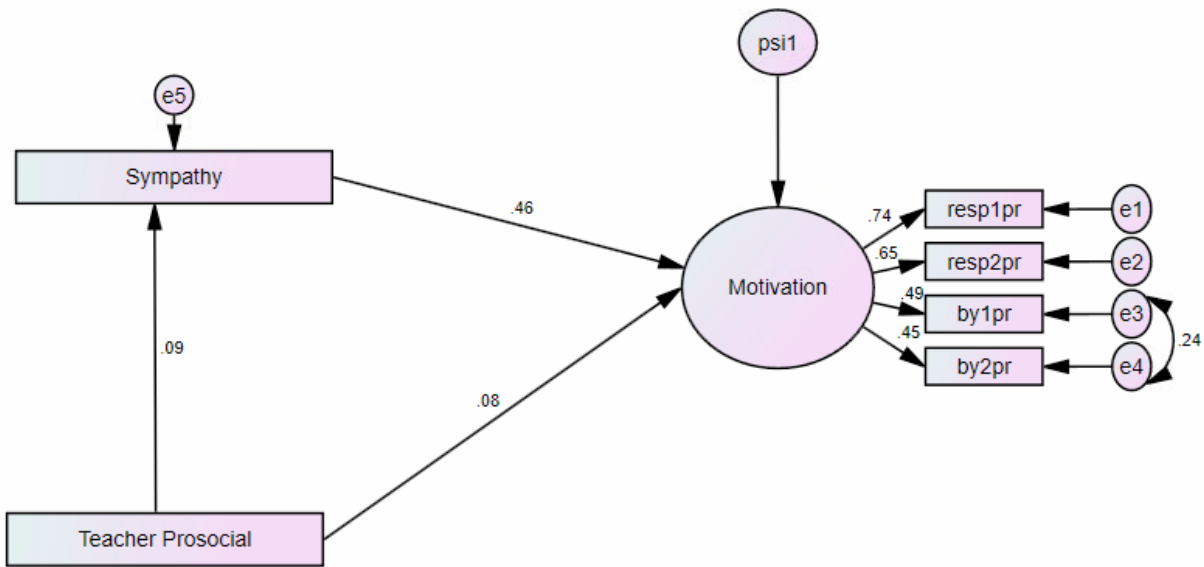


Figure 3a. CFA of Motivation to Intervene

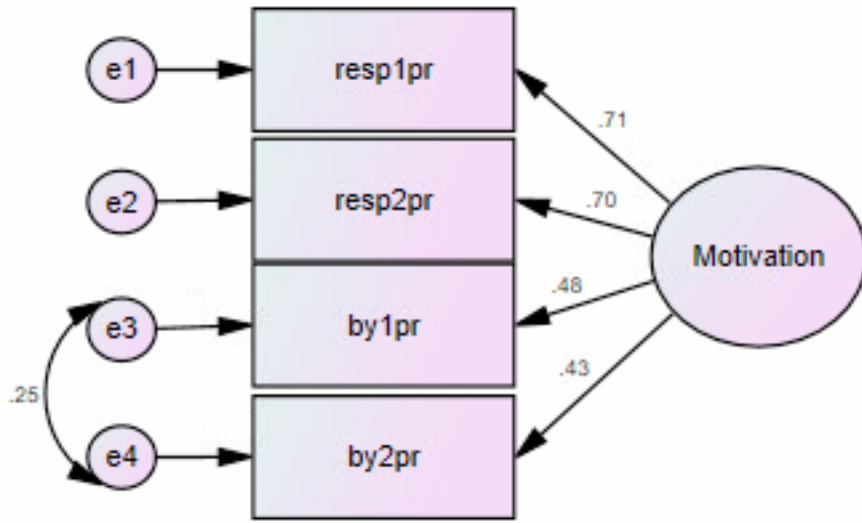


Figure 3b. CFA of Responsibility and Self-Efficacy

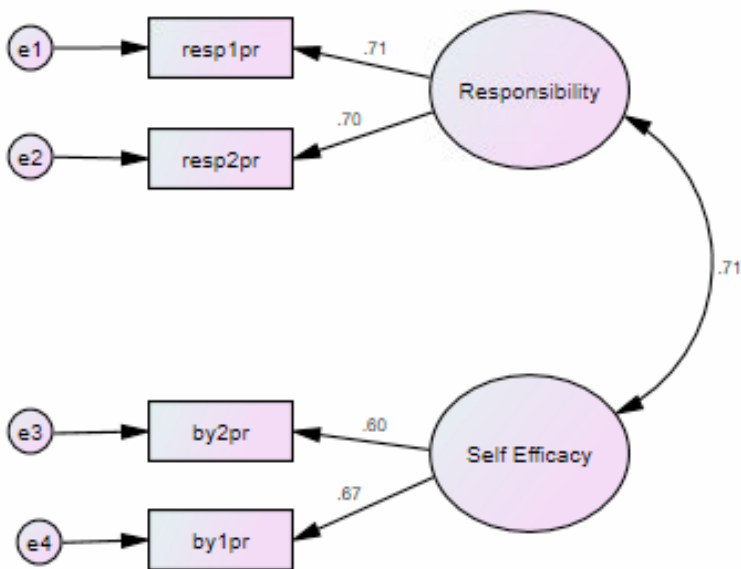
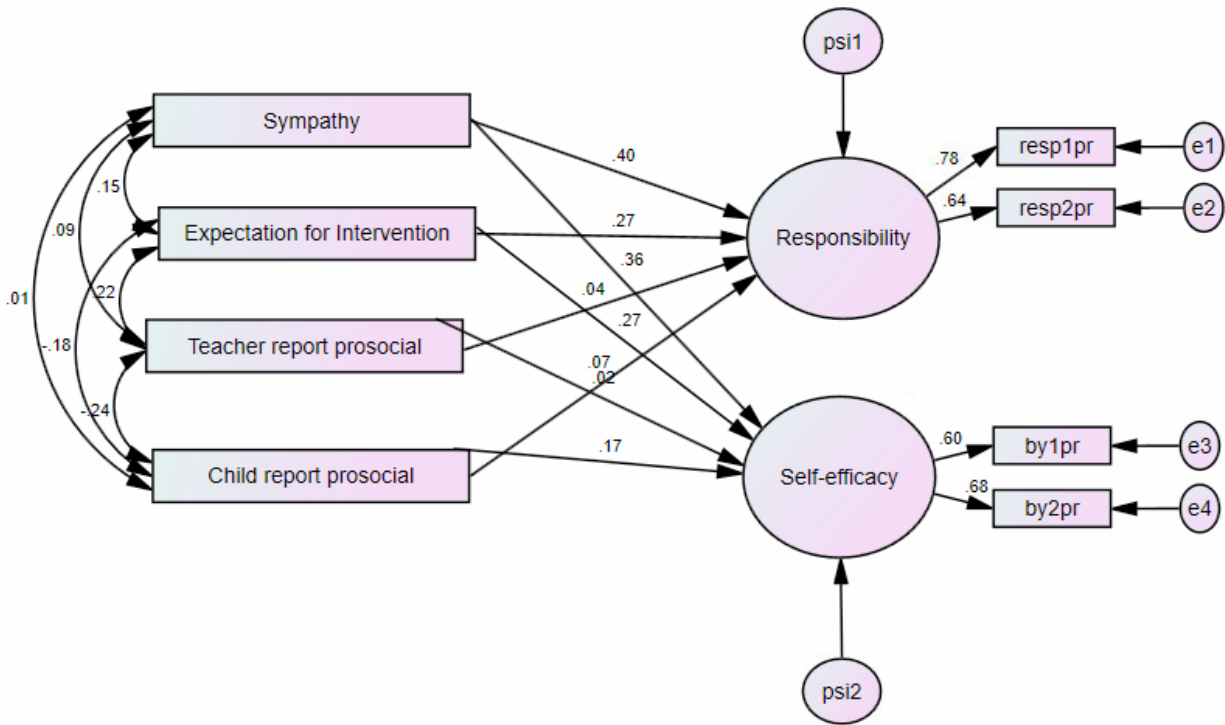


Figure 4. Alternative Structural Equation Model



Elizabeth Ayad
(609) 240-2960 • era212@lehigh.edu
601 Falcongate Dr. • Monmouth Junction, NJ, 08852

Education

Lehigh University

Doctoral Candidate, Doctor of Philosophy in School Psychology
Anticipated Graduation: June 2017
Subspecialization: School Centered Prevention

Lehigh University

Masters of Education, January 2014
Major: Human Development

The College of New Jersey

Bachelor of Arts in Psychology (cum laude)
Concentration: Clinical and Counseling Psychology

Honors and Certifications

- Certification completion of ADOS Introductory Clinical Training for all modules (Toddler-4) at The Children’s Hospital of Philadelphia – March, 2017
- Pennsylvania Certified School Psychologist –Education Specialist – 10/2016
- Nationally Certified School Psychologist – Anticipated July 2017
- Trained Mandated Reporter – September 2013
- Certified Positive Discipline Parent Educator – Summer 2013
- Council on Undergraduate Research (CUR) Travel Grant Award, January 2011
 - Award to present Senior Honor’s Thesis at the Eastern Psychological Association Meeting in March 2011 in Cambridge, Massachusetts.
- Marshall P. Smith Scholarship Award 2010
 - Award given to one psychology student per year for academic excellence, evidence of commitment to Psychology, and involvement in campus and community activities.
- Dean’s List for Fall 2008, Spring 2009, Fall 2009, Spring 2010, Fall 2010, Spring 2011.
- Academic Excellence Award from Mid-Atlantic Association of College & University Housing Officers (MACUH).

Academic & Institutional Committees

- Lehigh School Psychology Club – Historian –2012-2013

Professional Affiliations

- National Association of School Psychologists, September 2013- Present
- American Psychological Association, Division 16, Student Affiliate Member, 2015-Present
- Lehigh University Student Affiliates of School Psychology, September 2012- Present
- Psi Chi The National Honor Society in Psychology, Spring 2009

Clinical Experience

Pre-doctoral Intern, **Perelman School of Medicine, University of Pennsylvania**, July 2016-June 2017

Supervisors: Keiran Rump, Ph.D., & Melanie Pellecchia, Ph.D., BCBA, NCSP

- Currently completing my pre-doctoral internship at Dr. David Mandell's Center for Mental Health Policy and Services Research at the University of Pennsylvania.
- The internship consists of two rotations – assessment and interventions for children with autism.

Assessment Track Responsibilities

- Administering developmental, cognitive, and behavioral assessments to children in the Autism Clinic at Perelman's School of Medicine.
- Administering developmental and play-based assessments in community based settings and early intervention settings in the city of Philadelphia.
- Writing psychological evaluation reports for clients who come to the Autism Clinic.
- Writing treatment plans for clients that are submitted to the insurance companies for treatment.
- Developing recommendations to provide to families in the Autism Clinic.
- Conducting clinical interviews with caregivers and providing feedback to caregivers after assessments are completed.

Intervention Track Responsibilities

- Providing school-based consultation to teachers in autism support classrooms in an under-resourced urban school district.
- Consultation on evidence-based practices for children with autism which include, pivotal response training, functional routines, and discrete trial.
- Consultation visits include direct in vivo coaching these practices with students and teaching teachers how to use these practices in the classroom.
- Consulting with teachers on behavioral strategies to use in the classroom when challenging behaviors arise.
- Conducted a Professional Development full day training on discrete trial for autism support teachers.

BCBA Supervision, **Perelman School of Medicine, University of Pennsylvania**, July 2016-Present

Supervisor: Melanie Pellecchia, Ph.D., BCBA, NCSP

- Currently accruing BCBA supervision hours during pre-doctoral internship. BCBA experience includes teaching behavioral strategies to consultees and implementing behavioral strategies in autism support classrooms in Philadelphia School District.

Practicum Student, **Primos Elementary School, Upper Darby School District, PA**, September 2015-June 2016

Supervisors: Nakeia Smith, NCSP, Kristen Leren, Ph.D.

- School psychology practicum student two days a week at Upper Darby School District.

- Placed at the school which serves Upper Darby's autism population.
- Conducted cognitive, achievement, and behavioral assessments.
- Implemented behavioral and social-emotional interventions for students with autism spectrum disorder.

Practicum Student/Facilitator, *Preventing Relational Aggression in Schools Everyday (PRAISE)*, **Children's Hospital of Philadelphia**, August 2014-June 2015

Supervisor: Christine Waanders, Ph.D.

- Served as a practicum student twice a week on a violence prevention study conducted by Dr. Stephen Leff at The Children's Hospital of Philadelphia (CHOP). The project takes place in elementary schools in Philadelphia serving grades 3-5. The project includes 20 sessions where children are taught how to cope with problems effectively, learning about bullying and how to respond to bullying in a safe and effective way. The project also includes focus groups with students, teacher consultation, and parent focus groups.

Practicum Student, **Spring Garden Elementary School**, August 2013-June 2014

- Served as a practicum student at a local elementary school. The purpose of the practicum is to conduct behavioral assessments and implement an intervention with a student at the school. Other experiences include administering Behavioral Observation of Students in Schools and completing observations of students. The following semester the practicum focus was working with a third grade student who had difficulty in reading. A curriculum-based assessment was completed and a reading intervention was administered. Progress monitoring was taken to establish the affects of the intervention and recommendations were made to the teacher.

Practicum Student, **Head Start**, October 2013- December 2013

- Served as a practicum student at a local Head Start classroom. Conducting a Conjoint Behavioral Consultation (CBC) project with a parent and teacher of one of the students, this included conducting meetings with the consultees and creating an intervention plan for the student.

Teacher Assistant, **The College of New Jersey**, Ewing, NJ, Fall 2010

- Teaching assistant with TCNJ Faculty, Dr. Shawn Wiley, for a Methods and Tools of Psychology class. Responsibilities included conducting study sessions for students for exams, holding office hours once per week to help students, creating a lesson and presenting to students for part of one class period, attending two Instructional Intern workshops give by the College, creating a class improvement project, and creating mock test questions that are reviewed by Dr. Wiley.

Substitute Assistant Teacher and Intern, **Eden Institute**, Princeton, NJ, August 2009- January 2010

- Worked as an intern at Eden Institute, a school for children with autism that focuses on Applied Behavior Analysis techniques. I was placed in middle childhood where the children range from ages 8 to 13 years old. Responsibilities included implementing teaching and behavioral programs set by Eden Institute with students. Helped take students out into the community for programs such as grocery shopping, ordering food

with their computers or sign language, etc. Received certificate for completing Entry Level Training in Behavioral Teaching Strategies. After internship, Eden hired me as a substitute teacher for a few months.

*Program Floating Counselor, **Hi-Step Social Skills Summer Program**, Pennington, NJ, 2008*

- Hi-Step is an 8 week social skills summer program for children with developmental disorders. Hi-Step is a program that is geared to help improve social skills and problem solving skills. Worked with children with autism, ADHD, learning disabilities, and other diagnoses. Responsibilities included working with the children to try to improve skills through ABA principles such as positive reinforcement and working with students on teaching programs and improvement of social skills.

Research Experience

Dissertation, **Bystanders' Intent to Intervene in Bullying Situations in Urban Schools**, January 2015-Present

Dissertation Chair: Christine Cole, Ph.D.

- Currently conducting analyses using Structural Equation Modeling and writing my dissertation which examines characteristics that predict a student's motivation to intervene in bullying situations among elementary school students in an urban school district. Anticipated defense: Spring 2017.

Graduate Research Assistant, **Peer-mediated Social Skills Training for High School Students with Autism Spectrum Disorders**, August 2012 – June 2016

Supervisors: Linda Bambara, Ph.D. and Christine Cole, Ph.D.

- Worked on a project that investigated a peer-mediated social skills intervention for high school students with autism in an urban school setting. My responsibilities included conducting data collection, transcription and coding of videos of peer and focus student conversation and training other graduate assistants on the coding manual. I have conducted feedback and training sessions with typical peers to implement social skills intervention.

Qualifying Project, **Peer-Mediated Social Communication Skills Intervention for High School Students with Autism: Examining Peer Behavior**, January 2013- October 2014

- Completed a qualifying project (Masters Thesis), which examines data from the larger Autism Speaks study that investigates the effectiveness of a peer-mediated intervention for high school students with autism. The current project examines if the peers in the study use the strategies that they were trained on and if the use of the strategies influence the students' with autism communication.

Data Collector, **Reading Achievement Multi-Component Program**, Lehigh University, September 2013- June 2014

Supervisors: Edward Shapiro, Ph.D.

- Conducted pre test assessment for an intervention study aimed at improving reading outcomes for middle school students with reading disabilities. My primary task was to assess students' reading abilities using the Woodcock Johnson Cognitive Abilities test.

Data Collector, **Student Dissertation**, March 2013-May 2013

- Conducted classroom observations for a Lehigh School Psychology doctoral student's dissertation, which evaluated the effects of a peer-mediated intervention for elementary school students with autism. The primary data collection tool was the Behavioral Observation of Students in Schools (BOSS).

Research Assistant, **Educational Testing Service (ETS)**, July 2011 – July 2012

- Worked on projects focused on assessment accessibility for students with disabilities. Responsible for conducting literature reviews, coding and conducting cognitive interviews, creating and organizing IRB documents for Prior Review of Research, putting together materials for the study, and working with outside consultants for participation and administration of studies.

Research Assistant, **Dougllass Developmental Disabilities Center (DDDC)**, Rutgers University, May 2011 – August 2011

- Volunteered at DDDC to help with a doctoral student's dissertation on support groups for children who have a sibling with autism. The project is titled Project Sibling's Straight Talk about Autism Realities (Project SibSTAR).

Senior Honors Thesis, **The Influence of Parent and Peer Relationships on Coping Strategies and Psychological Health**, The College of New Jersey, Summer 2010 – Fall 2010

- Completed a year long research project that was overseen by faculty members at TCNJ. Research project investigated the relationship between parental and peer relationships, approach and avoidant coping strategies, and psychological health (depression and anxiety) among freshman college students at The College of New Jersey. Data collection was conducted by face-to-face interviews at TCNJ. I was responsible for coordinating data collection, imputing and analyzing data in SPSS. Data was also analyzed in a path analysis. Research was presented at an Oral Defense with faculty and presented at the annual Eastern Psychological Association Conference in Cambridge, Massachusetts in March 2011.

Research Assistant-Lab Manager/Mentor, **Research on Emerging Adulthood and Community Health (Reach Lab)**, The College of New Jersey, Fall 2010-May 2011

- Responsible for participant recruitment and data collection, which includes face-to-face interviews. Trained new lab members on data collection, conducting interviews, data entry, creating a database on SPSS, etc. Responsible for creating database into SPSS and inputting data. Responsible for lab improvement projects and for lab presentations on various projects at conferences.

Research Assistant-Qualitative Data Manager, **Research on Emerging Adulthood and Community Health (Reach Lab)**, The College of New Jersey, Fall 2009-Spring 2010

- Responsible for data collection that includes helping conduct interviews in local communities such as Trenton, NJ. Responsible for creating qualitative coding for qualitative data that would be later tested for inter-rater reliability. Responsible for creating Eastern Psychological Association (EPA) poster for EPA Conference 2010.

Research Assistant, National Science Foundation Summer Research at Center for Autism and Related Disabilities, University of Miami, May 2009-July 2009

Supervisor: Jennifer Durocher, Ph.D.

- Participated in a 10- week intensive summer research program. Completed at Center for Autism and Related Disabilities (CARD) in University of Miami with Dr. Michael Alessandri, Dr. Jennifer Durocher, and Dr. Anibal Gutierrez. Spent 20 hours a week in the lab conducting joint attention interventions and working with students. Created a research project and mentored by Dr.Durocher (Assistant Director of CARD). Project investigated the relationship between caregiver synchronous behavior and child joint attention in children with Autism Spectrum Disorder. Results indicated a significant quadratic and cubic relationship. Program was concluded with a ten-page paper, 15-minute presentation in front of faculty members from the Psychology Department at University of Miami, and poster presentation.

Research Assistant-Lab Manager and Project Manager, Culture and Emotion Lab, The College of New Jersey, Fall 2008 – Spring 2010

- Responsible for interviewing prospective lab members, and training lab members for data collection protocol. Project manager responsibilities include being the primary investigator for the study. Responsible for coordinating data collection and delegating responsibilities to other lab members. Responsible for inputting and cleaning up data into SPSS. Responsible for creating Eastern Psychological Association (EPA) poster for EPA Conference 2010.

Presentations and Publications

- Bambara, L. M., Cole, C. L., Kunsch, C., Tsai, S. C., & Ayad, E. (2016). A peer-mediated intervention to improve the conversational skills of high school students with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 27, 29-43.
- Ayad, E. (March 2016). Internalizing and Externalizing Difficulties Among Students with Autism Spectrum Disorder. Invited Professional Development Guest Lecturer for School Psychologists in Upper Darby School District, PA.
- Kunsch, C., Cole, C., Ayad, E., Lubar, A. (February 2015). Teaching Peers to Support Conversation with High School Students with ASD. Mini-Skills presentation at the National Association of School Psychologists annual conference, Orlando, FL.
- Bambara, L., Cole, C., Kunsch, C., Ayad, E., Lubar, A. (February 2014). Use of Peer Mediation Strategies to Improve Social Communication Skills in Adolescents with Autism. Paper Presentation presented at the National Association of School Psychologists annual conference, Washington, DC.
- Ayad, E. (March 2014). Use of Peer Mediation Strategies to Improve Social Communication Skills in Adolescents with Autism. Invited Guest Lecturer, University of Pittsburgh, Pittsburgh, PA.
- Bambara, L., Cole, C., Kunsch, C., Ayad, E., Lubar, A. (December 2013). Use of Peer Mediation Strategies to Improve Social Communication Skills in Adolescents with Autism. Paper Presentation presented at the TASH Conference in Chicago, IL.
- Ayad, E., Cole, C., Bambara, L., Kunsch, C. (February 2014). Peer-Mediated Social Communication Skills Intervention for High School Students with Autism: Examining

Peer Behavior. Poster Presentation presented at the National Association of School Psychologists annual conference, Washington, DC.

- Ayad, E., Chung, H. L., Cacoilo, M. (March, 2011). *The Influence of Parent and Peer Support on Coping Strategies and Psychological Health*. Poster session submitted to the 82nd annual meeting of the Eastern Psychological Association, Cambridge, MA.
- Chung, H. L., Ayad, E., Rivas, J., Proverbs, T., Docherty, M., Barrecchia, J., & Probert, S. (March, 2010). *Becoming civically engaged: Satisfaction matters*. Poster session presented at the 81st annual meeting of the Eastern Psychological Association, Brooklyn, NY.
- Marciante, M., Kim-Prieto, C., Zdep, L., Dutt, A., Alfeo, A., Ayad, E., Bartolini, C., Devlin, H., & DeBerry, J. (2010, March). *The impact of stereotypic depictions of women on explicit stereotyping of Asian Americans*. Poster session presented at the 81st Annual Meeting of the Eastern Psychological Association, Brooklyn, NY.
- Ayad, E., Durocher, J., Gutierrez, A., Hale, M., & Alessandri, M. (2009, July). *Caregiver Synchrony and Joint Attention in Children with Autism Spectrum Disorder*. Poster session presented at National Science Foundation Summer Research Opportunity at University of Miami, Coral Gables, FL.
- Kim-Prieto, C., Sevecke, J., Lamm, M., Ayad, E., Alfeo, A., Dutt, A., Marciante, M., & Zdep, L. (2009, March). *The impact of experiencing pride on extraversion and emotions*. Poster session presented at the 80th Annual Meeting of the Eastern Psychological Association, Pittsburgh, PA.