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INDIRECT BULLYING AND CONFLICT MANAGEMENT SKILLS IN CHILDHOOD AND ADOLESCENCE

A Dissertation

Submitted to the School of Education

Duquesne University

In Partial Fulfillment of the requirements for

the degree of Doctor of Philosophy

By

Charles M. Albright

December 2017

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Charles M. Albright

2017

DUQUESNE UNIVERSITY
SCHOOL OF EDUCATION

Department of Counseling, Psychology, and Special Education

Dissertation

Submitted in partial fulfillment of the requirements for the degree
Doctor of Philosophy (Ph.D.)

School Psychology Doctoral Program

Presented by:

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B.A. Psychology, Ohio Northern University, 2006
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October 12, 2017

INDIRECT BULLYING AND CONFLICT MANAGEMENT SKILLS IN CHILDHOOD AND ADOLESCENCE

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ABSTRACT

INDIRECT BULLYING AND CONFLICT MANAGEMENT SKILLS IN CHILDHOOD AND ADOLESCENCE

By

Charles M. Albright

December 2017

Dissertation Supervised by Laura M. Crothers, D.Ed.

In this study, the Young Adult Social Behavior Scale (YASB) and Conflict Resolution Scale (CRS) measures were administered to students from three private middle and high schools in the mid-Atlantic US as part of a larger study regarding the effects of a group counseling curriculum in reducing forms of indirect bullying. Research questions were developed to evaluate differences according to student age and gender in relational aggression, social aggression, and interpersonal maturity, as well as relationships between relational aggression, social aggression, interpersonal maturity, and conflict resolution skills. These questions were evaluated using MANOVA, Chi-square, and multivariate regression analyses, respectively. Results of these analyses suggested that in this sample, there were no mean differences in age and gender on the self-reported use of relational aggression, social aggression, and interpersonal maturity. However, there was an associative relationship between higher age and significantly elevated relational aggression scores. There was also an associative relationship between gender (e.g., males) and

significantly elevated scores on the social aggression scale. Finally, multivariate regression analysis indicated that relational and social aggression did not predict difficulties with conflict resolution skills. These results were discussed within the context of the present understanding of the literature.

DEDICATION

I would like to take this moment to dedicate this document to the people closest to me in my life, who are also the people who most definitively inspired my growth in academics. To my father, Charles Albright, who taught me what it means to use critical thinking to grow a new idea into new knowledge. To my mother, Rosemary Albright, who showed me what it means to be a scholar and to have discipline within one's field. To my brother, Joey, who demonstrated to me how to ignore fear and face any new endeavor head on. To my love, Jayme Schumacher, who believed in me always, during the many times that I doubted myself. Finally, to Dr. Laura Crothers, my advisor, who granted me endless patience, and demonstrated to me just how much work goes in to turning a good idea into good research. I could not be where I am today without all of you. This document, and the time spent to make it, is dedicated to you all.

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Chapter I

INTRODUCTION

Growing up is a developmental process of trial and error, which becomes especially challenging as a child enters the complex social world of school. At this point, a child must begin to accommodate the points of view of peers into his or her own world view. He or she must also learn how to navigate the various interpersonal and environmental dangers that a complicated social learning institution presents. Children navigate these dangers at a differential rate due to a number of physical, relational, and cognitive factors. Such variable reactions may contribute to the power differences among children that permit bullying to occur in the schools.

Schools are institutions for teaching children academic skills. However, keeping children safe is a responsibility that has always been implicit (and growing more explicit) to the jobs of educators. Another implicit role of a school is to create the environment that will facilitate the social development of its students. Both of these issues - keeping students safe and promoting their social development - have warranted increased attention by researchers and school officials as areas that need to be better understood by educators and school systems. One of the most salient threats to students' safety and their healthy social development that has worried educators and resulted in their efforts toward intervention is the issue of peer bullying in children and adolescents.

Indeed, one of the most normative yet damaging experiences of growing up may be through being targeted for peer victimization by bullies. Since the 1980's, research studies have been conducted to investigate the most common form of interpersonal aggression, bullying, which is defined by the following criteria: instrumental aggressive behavior, a power differential between perpetrator and victim (Olweus, 1993a) and the tendency for such behavior to be

repeated over time (Olweus, 1993a). Although initially, much research focused upon the direct forms of bullying, such as physical and verbal, in the last two decades, in recognition that an emphasis upon overt bullying artificially suggests that males are more likely to be perpetrators, increasing work has been conducted in investigating indirect forms of bullying (e.g., Björkqvist, Lagerspetz, & Kaukiainen, 1992; Crick, 1996).

Indirect bullying is the one form of bullying that, unlike more traditional forms of peer victimization, does not seem to diminish with age or with the implementation of whole-school anti-bullying programs (Woods & Wolke, 2003). Therefore, it seems to be of particular importance to study this form of bullying, as it appears to be more resistant to tiered intervention efforts using empirically-based strategies to reduce bullying, and as it also seems that it is a behavior that students can slowly perfect through their increasing developmental skills (e.g., cognition, language, logic) and continue using into adulthood. Hence, in this study, the relationship of age to relational and social aggression will be examined. This study will also represent an investigation regarding whether children's use of relationally- and socially-aggressive behaviors can predict overall difficulties in interacting and solving differences with peers.

Significance

Childhood bullying is a pervasive and significant problem that arguably negatively affects everyone that it involves (e.g., Bradshaw, O'Brennan, & Sawyer, 2007; Brunstein-Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007). It is one of the most common forms of school violence; a phenomenon that many students experience at one point or another in their educational experience. For example, in a sample of middle school and high school students, 41% of students reported being frequently involved in bullying, 23% reported being victims of

bullying, 8% self-described themselves as bullies, and 9% were reported to be bully/victims (Bradshaw, Sawyer, & O'Brennan, 2007). In another study, among primary school children, 3-27% reported bullying peers, while 9-32% indicated that they are bullied at least once a week (Berger, 2007). It is hard to imagine that such common experiences would not serve to shape the way that children interact with each other as well as the way in which they learn to solve problems.

Bullying is a normative, albeit often-damaging, experience of childhood, adolescence, and adulthood. Despite the familiarity of many with this problem, it is only recently that it has begun to be studied and the subject of intervention in a systematic way. Bullying did not become a topic of scientific inquiry until the late 1960's (Smith & Sharp, 1994), and a comprehensive, evidence-based, bullying intervention program was not introduced in the United States until the mid-1990's (Espelage, Gutgsell, & Swearer, 2004). Considering that the study of childhood bullying is a relatively new area of inquiry, there are still many questions that need to be answered. Advances in the bullying literature have led to the development of evidence-based bullying intervention techniques, the most effective of which is the Olweus Bullying Prevention Program (OBPP), which has been successful in encouraging better adult supervision in school systems and the use of prevention efforts to reduce bullying behavior in schools (Olweus & Limber, 2010).

However, programs like the OBPP have been criticized as proscribing undesirable behavior, while failing to facilitate children's social development and to directly teach children to manage their anger and solve peer conflicts. Without the provision of direct instruction of prosocial behavior, there is a risk that the inhibition of impulses to engage in direct aggression will be then subverted into more covert forms of aggression, such as forms of indirect bullying

(e.g., relational and social aggression) that is far more difficult for teachers, parents, and school officials to monitor and arrest. These behaviors are particularly insidious, as they can be developed and fostered throughout a child's educational experience and can continue on into adulthood. Whereas overt forms of bullying are easily monitored and significantly minimized in the adult world, without a better understanding of the development, maintenance, and need for intervention for relational and social aggression, coercive and divisive behaviors can potentially develop and be very difficult to manage and minimize in a workplace or in general society.

One area of social development that may be affected by the influence of relational and social aggression is the development of conflict resolution skills. Conflict is an inevitable part of a social life; children and adolescents experience interpersonal conflicts with family on a daily basis (Laursen & Collins, 1994). The way that children learn to manage conflict may affect their development (Dunn & Slomkowski, 1992). The development of a social understanding of conflict helps an individual to develop an understanding of others' feelings and intentions, in using or grasping social convention and the rules of behavior, in the use of strategic communication, and in other insights into interpersonal relationships (Dunn & Slomkowski, 1992). The ability to resolve conflict represents the development of an important set of cognitive skills. For example, learning to resolve conflict can help children learn principles of justice (Ross, 1996). Emotionally, navigating through conflict may assist children in developing affect regulation skills (Fabes & Eisenberg, 1992). Conflicts can also help children develop a sense of personal autonomy (Nucci, Killen & Smetana, 1996). It is for these reasons that the study of childhood conflict resolution is essential in evaluating children's overall social development. In order for children to develop the skills to interact with others as an adult, they need to learn how

to identify, manage, and solve conflicts between friends, loved ones, peers, and eventually co-workers, bosses, and subordinates.

The study of school violence and the tragedy of school shootings have identified the need to identify subtle conflicts that may have a cumulative effect that can lead to eventual tragedy (Yoon, Barton, & Taiariol, 2004). The obvious negative effects of direct aggression notwithstanding, it is particularly important to further study indirect forms of childhood aggression and their effect on how children manage subtle school conflicts. More effective management of covert forms of aggression and childhood conflict should help bring about a more positive and collegial school climate.

Theoretical Basis

A variety of comprehensive theoretical frameworks have been used to explain the etiology and characteristics associated with bullying and victimization, with the more prominent including the ecological systems model, social learning theory, and social dominance theory. According to Bronfenbrenner's (1979) ecological systems model, children's behavior is the product of the reciprocal interaction between multiple factors existing on different contextual levels, and includes individual traits, family dynamics, interpersonal relationships, school climates, and community characteristics. In other words, the likelihood that a child is likely to engage in bullying or be the victim of bullying depends upon the interaction between these various interdependent variables, and thus it is unlikely that there is a single and clearly identifiable cause. A recent meta-analytic study of predictors of bullying behavior indicated that both individual and contextual factors were strong predictors of bullying perpetration (Cook, Williams, Guerra, Kim, & Sadek, 2010). Furthermore, it is probable that such individual and contextual factors mutually influence each other. For example, defiance of adult authority, an

individual trait which predicted perpetration, may influence a contextual variable associated with perpetration, such as poor parental monitoring, and vice versa.

Bandura's (1977) social learning theory focuses upon the reciprocal interaction between an individual's cognitions, his or her behaviors, and the environment. In this model, it is posited that children acquire bullying behaviors through operant and vicarious conditioning mechanisms. The behaviors of perpetrators of bullying are positively reinforced through the attainment of goals, such as social status, and are negatively reinforced through the removal of threats to their power (Batsche & Knoff, 1994). Youth who support the primary perpetrators, who are sometimes referred to as the bully's henchmen, receive vicarious reinforcement in observing the benefits accrued by the perpetrator. Youth may also initially acquire bullying behaviors through witnessing violence between adults and/or peers, including through the media, and by observing or experiencing the use of physical or inconsistent punishment. Through such observation, children learn that aggression is an effective strategy by which to obtain goals and the rationale and motivations for using violence. Patterson, Reid, and Dishion (1992) propose that some families reinforce aggression in their children by attending to, laughing about, or approving aggressive behavior and ignoring prosocial behavior.

Social dominance theorists assert that a primary motivation of perpetrators of bullying is to obtain social status in order to establish a high position within the social hierarchy of their peers (Pellegrini & Long, 2003). Social status provides greater access to resources, such as toys for younger children, or access to relationships, either social or romantic, for adolescents. Physical bullying demonstrates the perpetrator's physical dominance, verbal bullying likely indicates the perpetrator's superior intellect and/or verbal acumen, and in relational bullying, which may consist of threats to end a relationship, spreading rumors, or humiliating another in

public, the aim of the perpetrator is either to obtain power within the relationship or to attack the social status of the intended target. Of note, Pellegrini and Long (2003) found that perpetrators of bullying are often more likely to be perceived as leaders by their peers and more attractive to the opposite sex.

When considering the theoretical underpinnings of the development of conflict resolution skills, it is again important to mention Bandura's Social Learning Theory (Bandura, 1986). As behavior is a function of a person in his or her environment, as well as the person's cognitive processes, Bandura suggested that individuals learn new social interaction skills through both traditional operant conditioning, but also through observational learning. Applied to the topic of conflict resolution, individuals learn to utilize conflict management tactics that have been reinforced in the past and that they have observed others successfully using. At young ages, children are most likely to learn how to manage conflict by observing the techniques of their parents and siblings. As a child enters elementary school, teachers and peers also become significant influences in modeling conflict management skills. By adolescence, children are most likely to look to peers for cues as to the most appropriate means to solve conflicts.

A theoretical framework that is tied directly to conflict resolution and not simply to social learning was developed by Morton Deutsch (1985), as a theory of cooperation and competition. Deutsch's theory described two types of goals that are possible given a conflict as well as two types of actions that can come from any conflict (Deutsch, Coleman, & Marcus, 2014). The two types of basic goals to any conflict are positive or negative. In other words, positive goals are those in which people are working together toward a common goal, and are in cooperation with one another. Negative goals are those in which individuals are working against each other, and are in competition. It is clear to see that it is rare that any conflict has participants whose

motivations are singularly at either of those poles, but these extremes set up a continuum of motivations that need to be considered and reconciled. These motivations are also used to evaluate the extent of interdependence between individuals. For example, members of a team would hopefully have a positive interdependence in their conflicts, where members of opposing teams would have a negative interdependence.

Deutsch also theorized two basic types of action by an individual to attempt to move toward a goal (Deutsch et al., 2014). These actions are known as effective actions and bungling actions. Again, there is great variability between these two types of actions, but the dichotomy allows for the variability of actions to resolve conflict to be evaluated. Considering the types of interdependent motivations and behavioral approaches to resolve a conflict can ultimately help to evaluate a person's perspective within a situation where a conflict must be resolved. As this study considers the conflict resolution skills of children and adolescents, it may be helpful to recognize that such motivations may be difficult for children to identify or for such motivations to change in a capricious manner. It is thus important to consider how different forms of indirect aggression potentially affect the development of these skills early in their development.

Relevant Literature

Relational and social aggression can have a significant impact on both those who engage in the behaviors as well as those who are victims of the behaviors. Victims of direct aggression often have low levels of intimacy in their interpersonal relationships; this is not the case with victims of indirect aggression. Those who take part in indirectly-aggressive behavior put themselves at risk for peer rejection, dropping out of school, and adolescent delinquency (Crick & Grotpeter, 1996). In social systems where an indirectly-aggressive culture becomes the norm, there will likely be high levels of environmental stress as fallout from the lack of cooperation and

trust among peers. Research has found that adolescents consider indirect forms of aggression to be the most harmful among all of the types of aggression considered (Archer & Coyne, 2005).

The development of relationally-aggressive behavior is relative to age (Archer & Coyne, 2005; Björkqvist, 1992), language development (Bowie, 2007) and social intelligence (Kaukiainen et al., 1999). More specifically, in early childhood populations, where language skills and social intelligence are limited for both males and females, both genders are likely to use physical aggression and basic forms of direct verbal aggression (Archer & Coyne, 2005). Therefore, it is not until late childhood or early adolescence when a noticeable difference between gender and the frequency of relational aggression can be observed. For example, Lagerspetz et al. (1988) found that 11-year-old girls engage in indirect aggression more often than males. Moreover, other research supports similar claims that relational aggression is found to occur more frequently in female adolescents than males of a similar age (Crick & Grotpeter, 1995; Crick et al., 1997; Österman et al., 1998). We could expect this difference to be attributed to females' earlier development of language skills (Bowie, 2007), as well as the fact that girls often demonstrate complex social skills at an earlier age (Card, 2008). By the time children reach middle adolescence, males' language skills and social development has generally caught up to girls and the rates of relational and social aggression begin to even out between the genders (Card, 2008).

In adults, research has found little evidence to support the variation in the frequency of relational aggression among male or females (Archer & Coyne, 2005). This suggests that both male and female adults engage in relational aggression, and tend to do so at similar rates. Indeed, in one study, Björkqvist (1992) found that males' use of indirect aggression increases in young adulthood and becomes similar to females of the same age. We would expect this to be

attributed to the developmental idea that as males gain language skills that are similar to females, they would engage in relational aggression with the same frequency.

Conflict resolution has also been studied in a systematic way and indeed is one of the most-oft studied elements of human relationships (Canary, Cupach, & Messman, 1995). Canary and associates (1995) suggested that there are four foundational factors that need to be considered when studying human conflict. The first is that the potential for conflict is present in any interaction between two people. Second, the way that people solve conflict can reveal many things about the nature of their relationships. The third assumption is that conflict requires attention to issues that are important to different types of close relationships. The final assumption that Canary and colleagues posit is that managing interpersonal conflict is a pervasive activity and therefore should continue to be studied. The study of human conflict has indicated that disagreements have a necessary and sequential structure, which has been compared to an episode in a novel (Laursen & Collins, 1994). Every conflict is a "time-distributed social episode," which consists of issues, oppositions, resolutions, and outcomes (Shantz, 1987, p. 285).

When studying conflict management, it is important to consider the different types of resolutions that are possible in a conflict. Vuchinich (1990) developed five distinct solutions to conflicts: compromise, third-party intervention, withdrawal, standoff, and submission. Jenson-Campbell, Graziano, and Hair (1996) later found empirical evidence that these five outcomes could be collapsed into three: negotiation, disengagement, and withdrawal. Two of the most common means to engage in negotiation include coercion and mitigation (Gottman, 1979). Coercion refers to some combination of negative affect, domineering resolutions, and unequal outcomes. Mitigation, on the other hand, generally incorporates positive affect, negotiated terms, and equal outcomes.

To date, no empirical investigation of the childhood use of relational and social aggression has been conducted to predict different types of conflict resolution styles. There is some need to discuss differences in the assumptions in the motivations that lead to violence from a conflict resolution and a bullying perspective. Generally, when those studying conflict resolution consider motivations for violence, the assumption is that there is a skills deficit that leads to frustration and then reactive aggression to meet the individual's needs (Brinson, Kottier, & Fisher, 2004; Gavine, Donnelly, & Williams, 2016). Bullying behaviors, on the other hand, tend to be instrumental. Bullies often use aggressive behaviors to demonstrate power and dominance over other individuals (Olweus, 1993a). What is not yet clear is whether the motivations of those who utilize relational and social aggression are similar to bullies who use aggression to demonstrate power, or whether relational or social aggressors manipulate social interactions to avoid deficits that they have in resolving conflicts in a prosocial manner.

Statement of the Problem

As schools and educational researchers nationwide are increasingly focusing upon bullying and its effects, a more nuanced understanding of both the behaviors involved in bullying and the motivations of those who engage in bullying behaviors is needed. Also, a better understanding of the developmental patterns of indirect bullying is needed to help researchers to target intervention at critical developmental periods to minimize bullying and promote prosocial behaviors. Finally, it is important for educators to recognize the relationship between indirect bullying and conflict resolution skills, in order to promote the use of such abilities in managing disagreements and power struggles in peer relationships.

Schools using comprehensive bullying interventions have done an admirable job of reducing direct bullying behaviors in schools. Such programs, however, often fail to account for

more indirect bullying (e.g., relationally- and socially-aggressive behaviors), which begin to become especially prevalent during the middle school and early high school years. Consequently, it is critically important to understand the development and use of these indirect bullying behaviors through the end of elementary school and into early adolescence. Different models of relational and social aggression have been theorized, but none has been empirically examined using more recent tools of measurement in the fields of psychology and education. Consequently, this study will potentially help researchers, educators, and interventionists to develop a greater understanding of when relational and social aggression is most likely to emerge in schools. It is particularly important to focus this investigation upon students who are in their first year of middle school and their first year of high school. These periods in child development are critical as they are the entry point and exit point of middle school, which is the time in a child's development when peer relationships and social groups are at their most influential to a child's day-to-day life. For these reasons, children in this age group are going to be especially vulnerable to relational and social aggression perpetrated by peers.

A second need in the study of relational and social bullying is to further evaluate the tendencies of different groups to use these aggressive tactics. For years, relational and social aggression was considered to be used primarily if not exclusively by girls. Further study has suggested that this relationship is far more complicated than merely being females' chosen form of aggression and is instead related to language development, social development, and cognitive development. Such findings imply that it is not merely gender-based learning that is creating these differences, but differences in developmental paths between girls and boys. There is need for further evaluation of these topics to attempt to see if newer measurement techniques validate these previously-hypothesized differences between boys and girls.

Finally, there is a need in the extant literature for further evidence of the impact of relational and social aggression upon child development. It is likely that bullying behaviors have a negative effect on a child's ability to positively manage conflicts. Consequently, it is important for research to be conducted to ascertain if the current practices in the measurement of relational and social aggression indicate which children are going to enter and leave middle school having difficulty in developing and using conflict management skills. Demonstrating a clear predictive relationship between relational aggression, social aggression, and difficulty in positively resolving conflicts would not only further identify how ultimately maladaptive these behaviors are, but also to identify the further need for bullying interventions that focus on prosocial skill development as part of any bullying intervention program.

The Current Study

The current study is a cross-sectional investigation of the rates in which children identify engaging in relational and social aggression during early middle school through early high school. The author of the study will also investigate differences in rates of relational and social aggression between boys and girls at each of these developmental time points. Finally, the author of the current study will evaluate whether the children who use relational and social aggression at higher rates than their peers are more likely to have difficulties identifying useful conflict resolution skills.

Research Question One

Do the rates with which children and early adolescents utilize relational aggression, social aggression, and interpersonal maturity vary between elementary/early middle school and early high school samples?

Hypothesis One

This researcher hypothesized that high school students will use relationally- and socially-aggressive behaviors at higher rates than elementary/middle school students, but they will not report higher rates of interpersonal maturity than elementary/middle school students. It is also hypothesized that girls' use of relationally- and socially-aggressive behaviors in the elementary/middle school will exceed that of their male peers, while the rates of the use of relationally- and socially-aggressive behavior will be equally evidenced by male and female adolescents.

Research Question Two

Are there gender differences between the reported rates of relational aggression, social aggression, and interpersonal maturity, and are these differences more pronounced for children who are in middle school as opposed to children who are in high school?

Hypothesis Two

It is hypothesized that middle school females will engage in relational and social aggression more than middle school males, but that there will not be a significant difference in the interpersonal maturity of the males and females in students of this age. The researcher also hypothesizes that there will not be group differences between high school males and females related to relational aggression, social aggression, and interpersonal maturity.

Research Question Three

Does a child's or adolescent's self-reported rate of relational aggression, social aggression, and interpersonal maturity predict self-perceived difficulty that a child will have in solving conflicts?

Hypothesis Three

The higher a child or adolescent rates his or her use of relational aggression and social aggression, the more likely it is that the child will report high rates of difficulty in resolving conflicts.

Summary

Bullying is a normative experience of children's and adolescents' social development that is damaging to victims and perpetrators, and is not resolved easily. In fact, research has suggested that the more closely obvious bullying behaviors are policed, the more likely it is that children will begin to use more indirect bullying (e.g., relational and social forms of aggression) to exploit power imbalances (Woods & Wolke, 2003). Accordingly, the author of the current study investigated the rates of indirect bullying in middle and high school students, the rates of indirect bullying among male and female students, and finally, the relationships among relational aggression, social aggression, and interpersonal maturity in reference to conflict resolution skills in middle and high school students.

Chapter II

LITERATURE REVIEW

Childhood bullying is a significant, pervasive problem in schools that has negative effects upon both perpetrators and victims (e.g., Bradshaw et al., 2007; Brunstein-Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007). It is one of the most common forms of school violence, with most students experiencing bullying at some time during their school experiences. For example, in a U.S. sample of middle school and high school students, respondents indicated that 41% of students were frequently involved in bullying, 23% were victims of bullying, 8% were bullies, and 9% were bully/victims (Bradshaw et al., 2007). Among primary school children in another sample, 3-27% reported bullying peers, while 9-32% indicated that they are bullied at least once a week (Berger, 2007). Unfortunately, the experiences of bullying seem to shape the way that children interact with each other and affect the way that they learn to solve problems among themselves.

Bullying can be difficult to identify in a school setting. Students often report that teachers do not intervene when a student is being bullied in school and that teachers are not aware of bullying, even though students frequently indicate that bullying occurs in the classroom while the teacher is present (Olweus, 1991). Additionally, bullying appears to be relatively stable across age groups and genders, with peer victimization changing from overt to covert forms that are more difficult to identify as children age. In this chapter, the investigator will review the definition of bullying, discuss the different types of bullying, present the developmental pathways of the various forms of bullying, and summarize the development of peer conflict resolution skills in children and adolescents.

Definition of Bullying

Bullying is a form of instrumental aggression, which is behavior not provoked by another person, but instead is a proactive form of aggression (Espelage & Swearer, 2003). Another important element of bullying behavior is that a power differential exists between the bullying perpetrator and victim, such that the victim is typically unable to defend him or herself from the bully's aggression (Espelage & Swearer, 2003). The third element of bullying behavior is that it tends to be repeated over time, although in some cases, a single incident can also be seen as an instance of this type of aggression (Olweus, 1993a). It is important to consider all three of these elements when identifying bullying. Bullying can be direct, inasmuch as behaviors are conducted overtly and reactively against another child, or indirect, in that bullying behaviors are done covertly without the victim being able to identify the perpetrator.

When conceptualizing bullying, it is important to also consider the common motivations of bullying behaviors. Olweus (1993) identified three categories of motivation that are common in bullies. First, bullies engage in bullying behavior due to a need to demonstrate power or dominance over peers. Second, it is possible that bullies have developed a degree of hostility toward their environment which has added to their motivation to inflict instrumental pain on others. Perpetrators of bullying often develop a hostile attribution bias, in which they have a tendency to interpret others' behavior as having hostile intent, even though no malice may be intended. Both of these may contribute to the development of bullying behaviors that will be discussed later in this chapter. The third motivation is what Olweus refers to as a "benefit component" to bullying behavior. This may also be considered as secondary gain or positive reinforcement for engaging in bullying behaviors. Basically, a benefit component speaks to perpetrators being able to use bullying behaviors to coerce a victim into providing benefits to the

aggressor. This could be anything from stealing another child's lunch money to gaining favor from a group of children by mocking another child.

Characteristics of Bullying Perpetrators

When considering bullying interactions, it is important to be able to both identify and understand the behaviors of both the victims and the perpetrators. First, it is important to recognize that bullies are often aggressive, not only toward other children, but to adults, and their environment, as well (Olweus, 1993). Olweus described bullies as having a combination of strength and reactivity which complement bullying behaviors. Perpetrators of bullying are more likely than non-bullying peers to exhibit externalizing behaviors, including defiant, aggressive, disruptive, and non-compliant responses, as well as internalizing symptoms, such as withdrawal, depressive, anxious, and avoidant responses (Cook, 2010). Perpetrators are more apt than non-involved peers to display social competence but to experience academic challenges, which supports that such children have high self-esteem in regard to their social and emotional functioning, but lack self-esteem related to their school functioning (O'Moore & Kirkman, 2001). In fact, it is a common myth that bullies are secretly anxious and insecure; bullies often have low levels of anxiety and feel justified in their behavior toward other children (Pulkkinen & Tremblay, 1992). Perpetrators are more likely than peers to have negative attitudes towards others, including a lack of empathy for others (Cook et al., 2010).

Regarding popularity with peers, bullies tend to be of average to low average popularity (Olweus, 1973). Their popularity is often highest in elementary school, and their standing among peers tends to diminish as they enter adolescence and then adulthood (Lagerspetz et al., 1982). Bullies are generally more likely than their non-bullying peers to experience trouble

resolving social conflicts, poor parental monitoring, and high levels of family conflict (Perren & Hornung, 2005).

Characteristics of Victims

It is also important for educators to understand the qualities seen in victims of bullying. This can be particularly difficult to discern, as bullying victims often do not inform teachers about bullying incidents (Fekkes, Pijpers, & Verloove-Vanhorick, 2005). Complicating matters further, bullying may occur in areas of the school where there is a lack of adult supervision (Fekkes et al., 2005).

Cook and his associates' 2010 meta-analysis shed light on the attributes of victims of bullying. Victims are more likely than their non-bullying peers to exhibit internalizing symptoms, use externalizing behaviors, lack social skills and be isolated and rejected by peers, have a negative family environment, and have negative cognitions about themselves. The findings of Cook and colleagues (2010) regarding the self-concept of victims is consistent with Carney and Merrell's (2001) assertion that victims "…see themselves as stupid, ugly, and worthless, and (usually) wrongly blame themselves for the attacks" (p. 368).

Victims have varying emotional responses to victimization. Borg (1998) found that among 9- to 14-year-old victims, 38% reported feeling vengeful, 37% felt angry, 37% indicated feeling sorry for themselves, 25% reported indifference, and 24% felt helpless. Additionally, there is evidence suggesting that victims often lack a sense of hope. Hunter and Boyle (2002) discovered that 45% of 9-11-year-olds who had been bullied for a short time reported feeling a lack of control regarding the situation.

Most victims of bullying are generally submissive or passive, but a significant minority of victims have been called "provocative victims" or "bully-victims" because of their apparent

tendency to provoke the ire of peers in response to their frequent demonstrations of aggression (Salmivalli & Niemenen, 2002). McAdams and Schmidt (2007) identify bully-victims as “reactive aggressors”, suggesting that such youth desire close interpersonal relationships but are insecure, anxious, and highly emotional. These researchers propose that reactive aggressors tend to inaccurately appraise other students as threatening and thus respond impulsively to these misperceived threats. In contrast, proactive aggressors are more deliberate in targeting those whom they perceive to be vulnerable, deriving a sense of status or power. Cook (2010) indicated that in comparison to their non-bullying and non-victimized peers, bully-victims tend to exhibit both internalizing and externalizing symptoms, have negative beliefs about themselves and others, lack social competence, have lower academic achievement, and are rejected and negatively influenced by peers.

Other Actors

It is important to consider that bullying in schools does not only involve perpetrators and victims; nearly everyone in a school system will have some contact with bullying behavior. Swearer et al. (2001) identified a continuum of bully-victim behaviors that include physical bullies, bullies, henchmen, bully-victims, and bystanders. Of these designations, henchmen are those children who support bullies, and bystanders (the majority of students) are those who may observe the bullying behaviors, but are not directly involved with them. Van Dost and colleagues (2000) found that the attitudes and possible intervention of bystanders significantly affect the bullying dynamic. Specifically, Van Dost found that intervention by bystanders can increase pro-victim attitudes and others’ efficacy in intervening.

Effects of Bullying

Numerous studies have suggested that being bullied by peers can have negative, pervasive effects upon psychological functioning (Nansel et al., 2004). The results of bullying behavior upon victims include anxiety, depression, low self-esteem, physical and psychosomatic complaints, posttraumatic stress disorder, and suicidal ideation (Crosby, Oehler, & Capaccioli, 2010; Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantenan, 1999; McKenney, Pepler, Craig, & Connolly, 2002; Williams, Chambers, Logan, & Robinson, 1996). As previously mentioned, victims tend to have poor relationships with their peers, which increases their vulnerability to future attacks (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004). Additionally, those who are aggressively victimized are less likely to feel connected to others at school (O'Brennan, Bradshaw, & Sawyer, 2009; Wilson, 2004). In fact, children victimized by peers through bullying are more likely than those who are not abused by peers to bring weapons to school (Carney & Merrell, 2001).

Unfortunately, these risks are not limited only to victims' short-term functioning. Olweus (1993b) found that when childhood victims of bullying became young adults (e.g., age 23 years), such individuals were more vulnerable to depression and low self-esteem than those who were not victimized by peers. Since the effects of being bullied can potentially last for a lifetime, it seems all the more important that educators are assertive in intervening in instances of peer victimization.

Children who engage in instrumental aggression, such as perpetrators of bullying, are also more likely to demonstrate beliefs supporting aggressive retaliation to others (Bradshaw et al., 2008), exhibit higher levels of aggressive-impulsive behavior than non-aggressive peers (O'Brennan et al., 2009), and, like victims, are less likely to feel a sense of connection to others

at their school (Wilson, 2004). There are also established negative effects for perpetrators of bullying, including an increased risk of mental health disorders, such as attention deficit/hyperactivity disorder, depression, oppositional defiant disorder, and conduct disorder (Kumpulainen, Rasanen, & Puura, 2001), as well as a greater likelihood of engaging in criminal behavior, domestic violence, and substance abuse as adults (Farrington, 1993). Children who bully are more likely than non-aggressive peers to have poor academic achievement, drop out of school, and struggle with career performance in adulthood (Carney & Merrell, 2001). Finally, researchers have found that childhood bullies are often severely punitive with their own children, who are subsequently more likely to be aggressive with peers (Eron, Huesmann, Dubow, Romanoff, & Yarmel, 1987; Smokowski & Kopasz, 2005).

Types of Bullying Behaviors

When conceptualizing bullying behaviors, it is important to consider that there are multiple ways to categorize bullying and other aggressive behaviors. Four types of peer victimization have been described in the literature as bullying behaviors: physical bullying, verbal bullying, indirect bullying, and cyberbullying. Physical bullying is a purposeful attempt to injure or make someone uncomfortable through the use of physical contact (e.g., hitting, pushing, hair-pulling; Olweus, 1993a). Verbal bullying, also called direct verbal aggression, consists of behaviors such as name-calling, shouting, abusing, and accusing (Björkqvist et al., 1992). Indirect bullying includes harming peers through purposeful manipulation (e.g., gossiping, ignoring, rumor-spreading) or causing damage to relationships or friendships (Crick & Grotpeter, 1996). Finally, cyberbullying refers to 1) written-verbal behaviors (e.g., phone calls, text messages, and emails); 2) visual behaviors (e.g., posting compromising, embarrassing pictures and videos); 3) impersonation behaviors (e.g., sophisticated attacks based upon identity

theft) and; 4) exclusion behaviors aimed at defining ingroup and outgroup members (Menesini et al., 2011, 2012).

Another way to categorize types of bullying is by labeling the behaviors as direct or indirect. Directly-aggressive behaviors are behaviors that a child engages in that are imposed immediately and often reactively toward another individual. Conversely, indirectly-aggressive behaviors are those that are committed when the target is not present at the time of the aggression. These aggressive behaviors tend to be more proactive and instrumental. A third way to characterize bullying behaviors is to further categorize indirect bullying, which can be delineated into two separate, yet interrelated forms of behavior: relational and social aggression. The difference between these two bullying subtypes is defined less by the types of behaviors exhibited, although there are some differences, but instead stresses the intention behind the behaviors and the end goal of the aggression. Complicating matters further, there are many other ways that aggressive behaviors can be categorized, which has been identified as one of the most difficult issues facing the study of bullying behavior (Underwood, Galen, & Paquette, 2001). In this study, the concepts of direct bullying, indirect bullying, relational aggression, and social aggression will be used, and will be further discussed in the next section.

Direct Bullying

When defining the construct of bullying, theorists have found it useful to delineate aggressive behaviors into two main forms: direct and indirect aggression. Direct aggression involves overt acts of aggression against a victim, and includes both physical and verbal forms. Physically-aggressive behaviors include hitting, kicking, punching, pinching, slapping, and restraining another (Griffin & Gross, 2004; Olweus, 1993). These types of behaviors are often easily observed, and tend to be reported with greater frequency than less overt forms of bullying.

Moreover, physical bullying often has physiological consequences (i.e., physical injuries), which can visibly detected and documented. Researchers have found that roughly 21% of children in schools are subject to physically-aggressive bullying behaviors, with 54% being physically bullied at least once during a school year (Wang, Iannotti, & Nansel, 2009).

In addition to physical bullying, verbal bullying is considered to be another form of direct bullying, which manifests itself overtly, but is observed and documented less frequently because the consequences are less evident. Behaviors that Griffin and Gross (2004) describe as being verbally aggressive are name calling, teasing, and insulting (for example, about intelligence or attractiveness). The most common form of verbal aggression in schools is belittling regarding one's physical appearance, while harassment regarding religion or race was far less prevalent in schools (Coyne & Eslea, 2006). Verbal aggression is often used to continue to exert control over bullying victims. Bullies may use verbally-aggressive tactics to dominate and maintain status over their victims without using physically-aggressive means that are more easily recognized by teachers and parents (Camodeca & Goossens, 2005).

Indirect Bullying

Indirect bullying is a construct that encompasses forms of aggression that are not immediately observable to others. Buss first used the term in 1961 to describe forms of aggression that were not similar enough to be grouped together with directly-aggressive behaviors. Later, Björkqvist (1992) defined indirect aggression as a type of behavior in which the perpetrator attempts to inflict pain in such a manner that he or she makes it seem as though there is no intention to hurt at all. These early conceptualizations of indirect aggression had almost always been related to female forms of aggression (Buss, 1961). Although indirect aggression is often carried out through verbal means (e.g., talking behind someone's back), it can

also be carried out by physical means. Destroying someone's property would be an example of physical indirect aggression (Archer & Coyne, 2005). While direct forms of aggression tend to be heavily monitored by teachers and parents, indirect forms of aggression are less easily noticed by observers outside of a given social group. Of note, two distinct subgroups of indirect bullying have been identified in the literature: relational and social aggression (Crothers, Schreiber, Field, & Kolbert, 2009).

Relational Aggression. Relational aggression refers to behaviors that harm others through damaging the victim's relationships, feelings of acceptance, inclusions in groups, and friendships, often by covert means (Crick et al., 1999). Specific behaviors encompassed by relational aggression include excluding someone from a group, making dirty gestures or faces, or intentionally failing to invite someone to a social gathering (Olweus, 1993). Perpetrators of these behaviors do not seek to attack the person in the moment, but instead, to attack the person's relationships with others. These types of behaviors are also referred to as covert bullying, which is defined as repeated behaviors which are concealed, secret, or clandestine, that inflict psychological/emotional harm through indirect, relational, or social means, where the target (victim) feels helpless and unable to retaliate (Spears, Slee, Owens, & Johnson, 2009). Although relational aggression is often done covertly, relationally-aggressive behaviors can be overt. For example, telling someone, "I will not be friends with you unless you do what I say" is an example of relational aggression, but is also an example of direct aggression (Archer & Coyne, 2005). The important variable is that the aggressor is manipulating the relational dyad between two people to inflict some form of pain on another. This is the key factor in relational aggression. Aggressors use withdrawal of friendship in order to get one's own way and exert power over victims (Crick, Bigbee, & Howe, 1996). Environments that foster high levels of

relational aggression can have a lasting negative impact on perpetrators as well as victims. Children who are relationally aggressive often exhibit hostile attributions in response to relational provocations (Crick, Grotpeter, & Bigbee, 2002).

Social Aggression. Social aggression was first characterized as a construct by Cairns and colleagues in 1989. At this time, it was conceptualized as a way to use means such as ostracism, alienation, and character defamation to aggress against an individual's status within a social group. The concept was expanded upon by Galen and Underwood (1997), who initially identified social aggression as a means through which females could demonstrate aggression toward one another, since it is socially unacceptable for females to demonstrate directly-aggressive behaviors. Underwood and colleagues (2001) suggested that social aggression was the most effective term to be used for any form of covert or deceitful aggression. Later, Crothers and colleagues (2009) identified social aggression as being a moderately correlated but separate construct from relational aggression. Social aggression incorporates a number of the same behaviors as relational aggression; however, perpetrators of social aggression focus upon damaging the victim's social standing, as opposed to damaging a specific relational dyad. Similar to relational aggression, social aggression can be accomplished through direct and indirect means, but with different end goals. This suggests that engaging in social aggression is often a more socially complex and nuanced form of aggression, as it necessitates the ability to manipulate multiple individuals in a social group as opposed to a single person (Crothers et al., 2009). Researchers generally consider gossip to be aggression if it is intended to inflict harm through the vehicle of the social group instead of a way for women to gain rapport. This brings the idea of "malicious gossip" into consideration when studying aggression (Coyne & Eslea, 2006).

Clarifying Forms of Aggression

At its conception in 1961, Buss used the term indirect aggression to identify forms of aggression that were not captured by the traditional forms of proactive and reactive forms of aggressive behaviors. Physically-aggressive behaviors such as hitting and kicking, as well as verbally-aggressive behaviors, such as screaming at an individual, were the traditional forms of aggression that were studied and were most likely attributed to boys in the bullying literature and men in the general aggression literature (Galen & Underwood 1997; Olweus, 1993). Indirectly-aggressive behaviors were then considered to be those that were used covertly by girls because direct, in-the-moment aggression was deemed far more unacceptable for girls than for boys. This understanding was furthered by Lagerspetz and colleagues (1988) who found through studying eleven- and twelve-year-olds that boys were more likely to use direct forms of aggression while girls were more likely to use indirect forms of aggression. This continued to be the predominant understanding of differences in male and female aggression for years until further investigation suggested that forms of aggression were used based on more complicated contexts than simply by gender (more on these differences to follow).

More recently, the concepts of relational and social aggression have been further developed to describe forms of aggression that are more sophisticated and difficult to detect than direct aggression. Relational and social aggression are often considered to be forms of indirect aggression; however, this is not necessarily accurate (Archer & Coyne, 2005). Although both relational and social aggression are less reactive and are more instrumental than traditional fighting or arguing, relational and social aggression can incorporate both directly- and indirectly-aggressive behaviors (Crick & Grotpeter, 1995; Galen & Underwood, 1997). What separates relational and social aggression categorically is not necessarily the behaviors that are expressed,

but the way behaviors are used to manipulate social interactions. In the case of relational aggression, behaviors are engaged in to manipulate a specific dyadic relationship, whereas the use of social aggression is to manipulate a child's status within a social group (Crothers et al., 2009).

As these constructs became more thoroughly studied, there were some who began to consider these two forms of aggression actually being part of one greater construct. In 2005, Archer and Coyne conducted a meta-analysis of the indirect aggression papers that had been released at that time. They concluded that the studies conducted investigating relational and social aggression were describing elements of the same construct, which became the prevailing hypothesis for approximately four years. At this point, Crothers and colleagues (2009) developed a measure to assess indirect bullying, and conducted a confirmatory factor analysis to test numerous possible models to see which would best fit the data supplied by a group of southwestern Pennsylvania college students. The results of this analysis indicated that relational and social aggression were in fact separate but related constructs. This is the conceptualization that the current study is based upon.

Implications of Relational and Social Aggression

Victims of direct aggression often have low levels of intimacy in their interpersonal relationships; this is not the case with victims of indirect aggression. The victims of relational and social aggression typically show higher levels of intimacy in their relationships, leaving them vulnerable to manipulation (Crick & Grotpeter, 1996). Also, Forbes et al. (2008) noted that higher levels of relational aggression were found in societies that are more collectivistic in nature. This suggests that the more interactive a social structure, the more likely relationally-aggressive behavior will be taking place. High levels of relational aggression can lead to social

climates rife with distrust and deception, which can have long-term effects on both the victims and perpetrators of indirect aggression. Those who take part in indirectly-aggressive behavior put themselves at risk for peer rejection, dropping out of school, and adolescent delinquency (Crick & Grotpeter, 1996). In social systems where indirectly aggressive behaviors become the norm, there will likely be high levels of environmental stress as fallout from the lack of cooperation and trust among peers. Also, Galen and Underwood (1997) and Underwood (2003) explained that although both girls and boys tend to use relationally-aggressive behaviors with similar frequencies, females appear to be more negatively affected by such behaviors because of the harm to their relationships, which girls intensely value.

Developmental Progression of Bullying

Bullying is a problem that may begin in childhood, but extends into adulthood. Dilts-Haryman (2004) illustrates this concept by stating that "society is learning that little bullies grow into big bullies…change a few words, and the adult bully was once the young bully who sat in your classroom" (p. 29). Olweus (1993) suggests that children who engage in direct bullying and aggressive behaviors in early childhood are likely to continue the trend into adulthood by displaying elevated levels of aggression in the workplace, in intimate relationships, and within family relationships. This sequence of direct bullying from early childhood into adulthood has distinct characteristics, which look developmentally different at various ages.

Regular social development follows a marked path through which typically-developing children and adults progress. When deviations or deficits occur, the individual tends to engage in age-inappropriate maladaptive behaviors in an attempt to make sense of his or her world, given his or her underdeveloped skill set (Siegler, Deloache, & Eisenberg, 2006). Typically-developing children begin maturation by acquiring social skills through engaging in cooperative

play and developing perspective-taking abilities; permitting growth away from previous egocentric thinking (Beauchamp & Anderson, 2010; Siegler et al., 2006). Moreover, these skills are practiced over time, and perfected through reinforced attempts. Thus, the development of social skills is directly related to a child's opportunities to interact with other children (Beauchamp & Anderson, 2010). It should be noted that physical aggression demonstrated around age two is considered a part of normal social development. The problem begins when children continue their successfully learned maladaptive behaviors into early childhood and beyond.

If social development deviates from the typical trajectory in early childhood, one can see elevated levels of aggression that exceed those found in normal development. These increased levels of physical aggression can manifest as a method of necessity, in an attempt to obtain or achieve whatever the child is seeking (i.e., obtaining food and toys). Troubling behaviors at this age are often ignored because they seem harmless in nature, but if unmitigated, they become a successfully-learned technique. This behavior pattern is utilized until other means of obtaining the desired results are appropriately developed. Moreover, these behaviors tend to gradually decrease as the child ages and attains advanced language development (Alink et al., 2006).

As children enter middle childhood, typically-developing youth continue to utilize language as a primary method of social interaction, and engage in decreased levels of physical aggression (Aresnio, 2004). The new environment of middle childhood creates the need to understand and adhere to rules and social norms, which enable children to interface successfully and cooperatively with their peers (Siegler et al., 2006). Typically, during this developmental stage, children begin to model behaviors evidenced by peers and parents, and tend to incorporate the observed behaviors into their personal interactions with peers. This process helps children to

model appropriate social interaction, but also can embed maladaptive methods to handling interpersonal conflict within a child's functioning. Learning from parents establishes a foundation for children to interact with peers and typically carries over into adolescence and adulthood, thus determining the extent and type of aggression they will exhibit (Letendre, 2007).

Moreover, when this social developmental sequence deviates from a typical trajectory, children in middle childhood continue to engage in heightened levels of physical aggression. This exhibition of direct physical aggression becomes more problematic in middle childhood, because the behavior is no longer socially and developmentally acceptable. Furthermore, these maladaptive behaviors illustrate that the child cannot resolve problems appropriately, which is often associated with emotional regulation problems, conduct problems, and peer rejection (Card et al., 2008).

As youth in middle childhood move into adolescence, their social development changes dramatically, typically maturing through an increase in personal independence and appropriate peer group interaction (Beauchamp & Anderson, 2010; Bowie, 2007). These behaviors are often seen through adolescents becoming more "standoffish," as they search for independence from their previous sources of emotional connection. Adolescents start to develop enhanced peer to peer and peer group relationships, which helps to develop their own personal identity. Moreover, successful identity formation is related to adolescents' chosen peer groups, their understanding of social interactions, and an increase in their ability to recognize and predict group dynamics (Siegler et al., 2006).

When adolescent social development deviates from the typical trajectory, individuals may present with different forms of aggression. If aggression was a successful method of socializing in early and middle childhood, during adolescence, these methods tend to become

refined and escalate if unchecked (Loeber & Hay, 1997). It is within this period of social development that forms of aggression are most distinctly divided between girls and boys (Letendre, 2007). More specifically, relational aggression is seen as more socially acceptable for females and physical aggression more appropriate for males (Bowie, 2007). To that end, at this stage of social development, girls tend to develop more interest in their relationships and interactions with others, leading to relational aggression as a method for solving problems with peers. Conversely, boys tend to be goal-directed in their behavior, and maintain autonomy in their relationships, which tends to lead to more physical aggression as a method for problem solving with others (Letendre, 2007). Despite these differences, research has found that as adolescents age, both boys and girls tend to engage in relational aggression with comparable frequency (Crothers et al., 2009). Similarly, with adolescence typically comes a decrease in physical bullying behaviors (Crothers et al., 2009).

Developmental Progression of Indirect Bullying

Physical aggression is generally seen as unacceptable behavior in most societal contexts, including schools. Indeed, many schools have instituted a “no tolerance” policy, in which immediate and severe sanctions are given to children who bring illicit drugs or weapons to school. Physical aggression is often seen from this vantage point, with educational systems assigning harsh consequences to children who use physical aggression toward their peers or adults. At an early age, children are taught that it is unacceptable to be physically aggressive, learning instead to express frustrations verbally. By elementary school, children are socialized against demonstrating verbal aggression, as well. While first parental and then societal boundaries suppress most directly-aggressive bullying behaviors, such limits do not necessarily assuage the anger and frustration that can lead to directly-aggressive acts (Coie & Dodge, 1998).

Other motivations, such as a need for establishing dominance and commanding power, are also not easily suppressed by adult admonitions. This may cause aggressive behaviors “to go underground” and become covert, with the perpetrator using means that cannot immediately be identified as aggressive. Researchers speculate that this is how indirect aggression is initially developed; when covert means are used to manipulate dyadic relationships, it is referred to as relational aggression (Archer & Coyne, 2005).

Relational aggression refers to “behaviors that harm others through damage (or the threat of damage) to relationships or feelings of acceptance, friendship, or group inclusion” (Crick et al., 1997, p. 77). While some behaviors that have relationally-aggressive motivations can be direct, most of the behaviors associated with relational aggression are indirect in nature. These behaviors change and grow more sophisticated as a child develops into an adult, but the motivations for the behaviors remain as an opportunity to utilize aggressive strategies to manipulate interpersonal relationships to one’s benefit.

While relational aggression generally requires a sophisticated set of social skills, relationally-aggressive behavior can begin early in a child’s life. Generally, relational aggression is more likely to occur as children develop the verbal and social-cognitive skills that are necessary to execute subtle social behaviors (Björkqvist, 1994). These skills rely upon the development of language skills as well as the ability to ease away from the egocentric thought that is typical of early childhood. These developments allow the child to not only have the language skills necessary to manipulate a relationship socially, but also have the ability to see a situation from another child’s perspective, thus being able to predict potential outcomes of his or her behavior. These skills are likely to develop in early childhood and can lead to the development of such relationally-aggressive behaviors as a child threatening to end a friendship

if a friend does not do what the child wants, not inviting a child to a party, threatening to exclude a child if he or she does not do what the child wants, or refusing to listen to someone with whom he or she is angry (at this young age, perhaps even literally covering their ears; Archer & Coyne, 2005). Children learn how to execute many new behaviors from observing the behaviors of those who are older than they are (Bandura, 1986). Thus, it is likely that these children are learning relationally-aggressive behaviors by copying social behaviors that they observe their parents, siblings, and neighbors using. This provides an explanation as to how these indirectly-aggressive tactics are learned by young children and also how they are perpetuated across generations.

As children move into early adolescence, their cognitive and language skills as well as their social skills develop to a point where relational manipulation is used with greater sophistication. It is also a period when children attempt to minimize parental influence and instead use their peers as their primary reference group (Seigler, 2006). The intersection of these two developmental trends is a reason that early adolescence is a period in which relationally-aggressive tactics flourish. Children begin to have more independence and start to engage in more adult-like social interactions. For example, they will begin to go to the mall or parties and interact with other children in situations that are not directly supervised by adults. It is during such occasions that some children begin to use their growing social repertoires to manipulate social relationships. Relationally-aggressive behaviors that develop in early adolescence include gossiping, spreading rumors, backbiting, breaking confidences, criticizing behind another's back, ignoring, or deliberately excluding others from a group (Archer & Coyne, 2005).

The social milieu of children in early adolescence can also serve to foster the growth and expansion of relationally-aggressive behaviors. Girls at this age often have closer and more

structured social relationships than do boys (Mazur, 1989). Adolescent girls are also typically more adept at identifying social groups, as opposed to boys who tend to have larger and looser groups (Cairns, Perrin, & Cairns, 1985). Having more investment in a social relationship will increase the likelihood that relational aggression will be a useful tool to manipulate others for personal gain. If these behaviors are reinforced socially through increased notoriety or status in the social group, then they likely will continue to be utilized.

Another developmental factor that leads to an increase of relationally-aggressive behaviors in adolescence is language skills. It has been established that the development of relationally-aggressive behavior is related to the growing sophistication of language skills (Bowie, 2007). A child who is going to manipulate a relationship in an aggressive way will need strong verbal skills to be successful. Girls tend to develop verbal skills earlier than boys, so when taken into consideration with the aforementioned differences in social structure, it is not surprising that in early adolescence, girls tend to utilize relational aggression more than boys (Salmivalli, Kaukiainen, & Lagerspetz, 2000). Eventually males' verbal skills do catch up to females' and not surprisingly, there is evidence to suggest that by adulthood males utilize relationally-aggressive behaviors as often as do females (Archer & Coyne, 2005; Björkqvist, Österman, & Kaukiainen, 1992). As children grow from adolescents to adults, the behaviors that they practice grow as well. If those relationally-aggressive behaviors that were born on the playground were perceived as being successful in meeting the child's goals, then he or she is likely to continue to use these tactics to meet his or her objectives as he or she matures into adulthood.

Gender Differences and Bullying

Gender has frequently been a construct studied with regard to aggression and bullying behavior. Not surprisingly, males and females have reported differences in the incidence and types of bullying used and experienced. Males are more likely to report being belittled because of religion or race and to be hit, punched, or slapped (Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2008). Females, on the other hand, were more likely to be victims of rumors, sexual jokes, comments, or gestures (Klomek et al., 2008). Speaking generally, this suggests that at some level, boys are more likely to report experiencing direct and reactive forms of bullying and girls are more likely to report indirect and relational forms of bullying. Gender differences in perceived bullying behavior also highlight the forms of bullying that are most likely to be perceived as hurtful. For example, because girls seem to value their social connectedness with others more than males, females are more negatively affected by aggressive behaviors that cause harm to their relationships (Crothers et al., 2009). Females have been found to have increased rates of depression, suicidal thoughts, and suicidal attempts when bullied about their looks or speech, are victims of vicious rumors, and are physically bullied regardless of the frequency (Klomek et al., 2008). It has also been found that young, adult women, when given the same stimulus as men, are more likely to desire to retaliate with indirect aggression (Hess & Hagen, 2006).

Gender and Indirect Bullying

The development of relationally-aggressive behavior appears to be relative to age (Archer & Coyne, 2005; Björkqvist, 1992), language development (Bowie, 2007) and social intelligence (Kaukiainen et al., 1999). More specifically, in early childhood populations, where language skills and social intelligence are limited for both males and females, both genders are likely to

use physical aggression and basic forms of direct verbal aggression (Archer & Coyne, 2005) Therefore, it is not until adolescence when a noticeable difference occurs between the frequency of relational aggression used by males in comparison to females. For example, Lagerspetz et al. (1988) found that 11-year old girls engage in indirect aggression more often than males. Moreover, other research supports similar claims that relational aggression is found to occur more frequently in female adolescents than males of a similar age (Crick & Grotpeter, 1995; Crick et al., 1997; Österman et al., 1998). We could expect this difference to be attributed to females' earlier development of language skills (Bowie, 2007), as well as girls often demonstrating complex social skills at an earlier age (Card, 2008). By the time children reach middle adolescence, males' language skills and social development has generally caught up to girls, and the rates of indirect bullying begin to even out between the genders. This trend continues on into adulthood, where the use of indirect bullying appears relatively equal in men and women (Archer & Coyne, 2005; Björkqvist, 1992).

Indirect Aggression and Conflict Resolution Skills

It is well documented that aggressive behaviors have a negative impact on the social development of children. Parker and Asher (1987) argue that aggressive behaviors documented throughout childhood suggests social adjustment difficulties into adulthood. This obvious association is not limited to child development and overtly-aggressive behaviors. It has also been demonstrated that the tendency to engage in indirect forms of aggression, such as relational and social aggression, can lead to individuals experiencing more frequent conflictual peer group interactions (Coie & Kupersmidt, 1983). One of the normative experiences of childhood that facilitate social development is interpersonal conflict. Conflicts are a daily fact of life, and the ability to manage and resolve conflict is an important element of learning to navigate the social

world. The development of a social understanding of conflict helps an individual to develop an understanding of others' feelings and intentions, in using or grasping social convention and the rules of behavior, in the use of strategic communication, and other insights into interpersonal relationships (Dunn & Slomkowski, 1992). The ability to resolve conflict represents the development of an important set of cognitive skills. For example, learning to resolve conflict can help children learn principles of justice (Ross, 1996). Emotionally, navigating through conflict may assist children in developing affect regulation skills (Fabes & Eisenberg, 1992). Conflicts can also help children develop a sense of personal autonomy (Nucci, Killen, & Smetana, 1996).

To this point, there has been limited investigation into the relationship between indirect forms of aggression and conflict resolution skills. One of the questions that has been posed in the extant literature base is whether or not those individuals who take part in indirect forms of aggression do so because of deficits in conflict resolution skills. Those who consider bullying from a school violence prevention approach often advocate for this perspective. For example, Spivak and Prothrow (2001) suggested that both the use of direct and indirect bullying suggests that there is an inability to manage conflict successfully. This perspective implies that the most important means to stop bullying behavior and overall school violence would be to teach prosocial conflict resolution skills so that children learn from an early age to avoid conflicts by assertively managing peer conflicts. Another perspective on the relationship between indirect aggression and conflict resolution skills comes from the aggression literature. Research in this area suggests that there is a more insidious relationship between conflict resolution skills and indirect aggression. Björkqvist (1992) indicated that individuals who utilize indirect forms of

aggression are socially skilled, and use those social skills to manipulate personal relationships and social groups to obtain power and dominance over others.

Investigation into these relationships has yielded some interesting results regarding these hypotheses. In a study of Russian adolescents, indicated that boys who engaged in frequent indirect aggression tended to have more difficulties managing conflict (Butovskaya, Timentschik, & Burkova, 2007). In the same study authors reported that girls who engaged in indirect forms of aggression did not have reported difficulties managing conflicts. This would support the hypothesis presented by Bjorkqvist and in the Butovskaya et al investigation. Also, even though aggressive boys tended to have more conflict resolution deficits, they also tended to be more tolerant to aggression. This suggested that those who may skillfully manipulate indirect aggression and conflict resolution strategies could have more opportunities for success obtaining power, status, and domination among boys (Butovskaya, Timentschik, & Burkova, 2007). There is evidence that in African cultures, where boys and girls tend to develop social skills at similar rates, there is less of a relationship between indirect aggression and conflict resolution skills (Butovskaya, Burkova, & Mabulla, 2010). This seems to suggest that although those who have challenges with conflict resolution skills may still use indirect aggression, the remediation of social skills development alone may not stop all individuals from using indirect aggression. In fact, individuals may become more successful using indirect aggression as they become more socially skilled. This would likely implicate the subset of bullies who engage in bullying behaviors as a form of social dominance (Reijntjes, Vermande, Thomas, Goossens, Olthof, Aleva, & Van der Meulen, 2015).

Also, in some of the current relational aggression literature, authors have commented on how indirect forms of aggression affected interpersonal relationships. For example, Grotpeter

and Crick (1996) identified that there were differences in how children who used indirect forms of aggression tended to manage interpersonal relationships. Children who engaged in frequent indirect forms of aggression were more likely to engage in highly intimate and exclusive friendships. Although their friendships are intimate and exclusive, children who utilize indirect aggression reported infrequently disclosing personal information to their friends. Instead, these children tended to frequently create situations when their friends could self-disclose to them. Children who were likely to engage in indirect forms of aggression were also likely to choose friends who were relatively open with secrets (Grotpeter & Crick, 1996). It is possible, given these investigations into these friendships, to begin to hypothesize that indirectly-aggressive children may seek out these sorts of friendships to generally have an advantage over others in possible conflict situations. Since this cannot yet be determined, from the current literature base, more investigation into the effects of relational and social aggression on conflict resolution skills in children is necessary. Consequently, the remainder of this chapter will provide a focus on a review of the literature relevant to the study of interpersonal conflict resolution skills in children and adolescents.

Conflict Resolution

Much research has attested that the development of conflict resolution skills is a vitally-important skill of child development. Conflict represents a child's earliest experiences of having his or her wants and needs coming into conflict with another person's wants and needs. The way that a child learns to manage these conflicts can have an impact on how much conflict a child will experience as he or she gets older, as an inability to effectively manage conflict can lead to an increase in the amount and severity of conflict in a person's life. Deficits in conflict resolution skills may lead a child to being at risk for social maladjustment and rejection from

peers (Newcomb, Bukowski, & Pattee, 1993). Conflict resolution and conflict resolution skills are also important to a child's cognitive development as they provide a basis for principles of justice as well as personal autonomy (Nucci, Killen, & Smetana, 1996). Finally, conflict resolution also allows children to learn to regulate their own affect and affect the feelings of others (Fabes & Eisenberg, 1992).

Definitions of Conflict

Defining a construct such as conflict and conflict resolution includes a number of considerations, as conflict can be defined at a number of different levels. There can be conflicts between countries and political parties, CEO's and labor unions, marital spouses, and toddlers in a sandbox. Each of these types of conflict has varying features and some related elements. Louis R. Pondy was an early theorist who developed early outlines regarding the way in which to think of conflict at an organizational level. He identified conflict as having three variations: (1) bargaining conflict among the parties to an interest-group relationship; (2) bureaucratic conflict between the parties to a superior-subordinate relationship; and (3) systems conflict among parties to a lateral or working relationship. Although this model is not immediately applicable to childhood interpersonal conflicts, it allowed for consideration of some of the dynamics that would be important to categorize in a conflict management situation. When considering interpersonal conflict, Jehn and Bendersky (2003) suggested that conflict was a series of disagreement or incompatibility between opinions and principles. Shantz (1987) suggested that conflict occurs when two or more parties are in behavioral opposition. A basic example of this would be as follows: Child A influences Child B, then Child B opposes Child A. This dyadic interaction would be the most fundamental form of conflict that can arise. There is often the case

that more people and other phases of conflict complicate matters further, but this basic example helps to identify what the base elements of an interpersonal conflict would need to be.

A more operationalized definition of a conflict is that conflicts include any disagreements, verbal disputes, emotional quarrels, or physical fights between two or more people (Optow, 1991). Most of the conflicts that occur between people involve these sorts of negatively-perceived interactions. It is important to remember, however, that although conflict includes two parties opposing each other, they do not necessitate negative affect, anger, aggression, or violence (Laursen, 1993). Conflict can arise and conclude without difficulty, or it may involve all of the aforementioned negative behaviors. Overall, conflicts in childhood and adolescence are times when an individual experiences that his or her interests may come in direct opposition to another person's interests, and therefore need to be considered, managed, and resolved.

Characteristics of a Conflict

There are different elements to a conflict that will be important to consider in any systematic investigation of conflict and conflict management. First, Shantz (1987) identified necessary components that comprise a conflict. These components included an issue, a resolution, and an outcome. When considering how to evaluate, manage, and intervene regarding any conflict it will be helpful to consider these elements. Deutsch (1985) suggested that it is important to consider different principles of a conflict within different social contexts; for example, whether the issue of equity is the most prominent in situations in which economic productivity is the primary goal. Equality is a dominant principle when social harmony, cohesiveness, or fostering enjoyable social relations is the primary emphasis of the interaction. Finally, the issue of need is the most salient consideration in situations when encouraging

personal development, and personal welfare is the major goal. These elements suggest the importance of considering not only immediate behavioral factors of a conflict, but also more contextual motivational ones.

Relationships within Childhood and Adolescent Conflict

When considering childhood and adolescent conflicts, it is particularly important to consider the types of relationships in which peers are likely to engage. In their meta-analysis of the developmental perspectives of conflict resolution, Laurson, Finkelstein, and Betts (2001) identified four categories of peer relationships acquaintances, friends, romantic partners, and siblings. Acquaintances included dormitory roommates, non-friends, and classmates not otherwise specified as friends. When studying these relationships, most investigators allowed the individual to define and identify his or her own relationships. These relationships are important to consider, as individuals are likely to resolve conflicts differently based on the relationship that they have with the person with whom they are in conflict (Laurson et al., 2001).

Definition of Conflict Resolution

While there are a number of considerations to be determined regarding whether a definition of conflict should be used, conflict resolution can be considered in somewhat simpler defining terms. Conflict resolutions are behaviors or tactics that terminate conflicts. Canary and associates (1995) suggested that there are four foundational factors that need to be considered when studying human conflict. The first is that the potential for conflict is present in any interaction between two people. Second, the way in which people solve conflict can reveal many things about the nature of their relationships. The third assumption is that conflict requires attention to issues that are important to different types of close relationships. The final assumption that Canary (1995) posits is that managing interpersonal conflict is a pervasive

activity and therefore should continue to be studied. The study of human conflict has indicated that disagreements have a necessary and sequential structure, which has been compared to an episode in a novel (Laursen & Collins, 1994). Every conflict is a "time-distributed social episode," which consists of issues, oppositions, resolutions, and outcomes (Shantz, 1987, p. 285).

When considering the development of conflict resolution skills, it is first important to consider the ways by which conflicts can be resolved. Early research on conflict resolution in children suggests that there are basically five strategies for closing a disagreement: compromise, third party intervention, withdrawal, standoff, and submission (Vuchinich, 1990). Later research, conducted by Jensen, Campbell, Graziano, and Hair (1996), suggested that these categories may be collapsed into three categories: negotiation, disengagement, and coercion. These categories have become the main forms of conflict resolution studied in childhood and early adolescence.

Motivational Factors in Conflict Resolution

In addition to considering the types of resolutions to conflict, it is also critical to consider the possible motivations that individuals may have as they attempt to manage a given conflict. Deutsch (1973) identified three basic types of motivational orientations that can occur in a conflict: cooperative, individualistic, and competitive. In cooperative motivations, one of the conflicting parties has a positive interest in the welfare of the other party as well as his or her own welfare. In an individualistic orientation, one of the conflicting parties is interested in maximizing a beneficial outcome for himself or herself without concern for the welfare of the other party. In a competitive orientation, a party not only wants to maximize his or her personal benefit, but he or she also wants to do better or attain more than the other party or parties in the conflict. When discussing these orientations, Deutsch (1994) is clear that variation and

competing motivations can and do arise. Kelly and Stahelski (1970) found that when the motivations of two conflicting factions are reciprocal, motivations will likely remain stable. When motivations are not reciprocal, then the tendency is that the motivations will drift toward competition.

Development of Conflict Resolution Skills

When considering the theoretical underpinnings of the development of conflict resolution skills, it is again important to mention Bandura's Social Learning Theory (Bandura, 1986). As behavior is a function of a person in his or her environment, as well as the person's cognitive processes, Bandura suggested that individuals learn new social interaction skills through both traditional operant conditioning, but also through observational learning. Applied to the topic of conflict resolution, individuals learn to utilize conflict management tactics that have been reinforced in the past and that they have observed others successfully using. At young ages, children are most likely to learn how to manage conflict by observing the techniques of their parents and siblings. As a child enters elementary school, teachers and peers also become significant influences in modeling conflict management skills. By adolescence, children are most likely to look to peers for cues as to the most appropriate means to solve conflicts. The next few paragraphs will provide a review of the developmental pathway of conflict and conflict resolution skills from early childhood, through adolescence.

Conflicts arise between children at a very young age, and somewhat surprisingly, conflict resolution begins at an equally young age. Research suggests that young children can manage basic conflicts on their own. Bakeman and Brownlee (1982) reported that children at the age of two were able to resolve 26.1% of their conflicts on their own. This number grows to 33% and then 47% by the ages of 4 and 5, respectively. Conflicts between children in the early childhood

age range typically revolve around the distribution of resources, such as toys, materials, and space (Chen et al., 2001). Common behaviors used in initiating conflict management range from a child giving a simple “no” to using simple reasoning/justifying, offering alternative proposals, postponing agreement, and evading. Response behaviors include insisting, aggravating, reasoning, offering alternative proposals, compromising, ignoring, requesting explanation, and aggressive behavior (e.g., physical force, tantrum; Eisenberg & Garvey, 1981). Another means by which children resolve conflicts in early childhood is to ask for adult assistance, which can include tattling, whining, or asking for help (Chen et al., 2001). It may be assumed that conflicts in early childhood are solely resolved through physical aggression. Although this is a means of conflict resolution at all ages and especially for young children, this is by no means the only way that conflicts are resolved.

During the kindergarten and early elementary years, children grow and begin to become more aware of social roles and expectations. During these years, there is an increase in socially-oriented conflicts, such as those involving claims about opinions and beliefs, teasing, and social order (rule violations; Corsaro & Rizzo, 1990). Conflict resolution behaviors during these years remain similar to those of early childhood, except that as children’s language and pragmatic communication skills develop, they begin to use more sophisticated language in their attempts to mediate and solve conflicts (Horowitz, Jansson, Ljungber, & Hedenbro, 2009). Even so, children at an elementary school age resolve conflicts more often with coercion than with negotiation or disengagement (Laursen, Finkelstein, & Betts, 2001). However, this will often change as a child reaches adolescence and adulthood.

Although children as young as toddlers begin to resolve their own conflicts, and by elementary school, they have begun to use more sophisticated language to resolve conflicts, the

majority of children's conflicts are partially, if not completely, managed by an adult (Killen & Turiel, 1991). Conflicts can be managed by a parent, a teacher, or another caregiver and their influence into a child's development of conflict resolution skills is important. Indeed, typically, it is either a parent, teacher, or other caregiver who manages conflicts at this time. Chen (2003) indicated that when adults intervene in conflict, the two main strategies that they use are cessation and mediation. The job of the teacher in these situations is to stop and settle unproductive conflict immediately, but to also be aware of opportunities to model and shape developmentally-appropriate mediation behaviors to the children so that they will learn to use these skills when conflicts arise as they age. As children move into adolescence, the influence of adults upon their social interactions are minimized and the influence of their peers upon conflict resolution increases significantly (Laurson et al., 2001).

Conflict resolution skills are expanded upon greatly during the middle school and adolescent years. This is the period in which peer relationships become the driving influential force in social development. Research in conflict resolution has found that this is also the period when children are learning and developing new conflict resolution skills. This process usually occurs by children acquiring and testing new social skills with friends before applying them to other relationships (Ladd & Kochenderfer, 1996). Very early on, children are able to identify that negotiation is the preferred method in resolving conflict, but most children use coercion more frequently than the other forms of conflict resolution. This is likely because they have not practiced the new strategies and older strategies may continue to be effective for the moment (Laurson et al., 2001). As children age, they become more effective in utilizing negotiation skills due to the development of better conflict appraisal and self-regulation skills (Selman,

Beardslee, Schultz, Krupa, & Podorefsky, 1986). Not surprisingly, the same authors also identified that cognitive skills are also closely tied to conflict resolution skills.

Developmental changes in resolutions may also be moderated by the type of relationship in which the conflict arises, as this period is sensitive to peer influence. There is reason to suspect that friends and romantic partners rely more on negotiation and less on coercion than acquaintances and siblings (Laursen, Hartup, & Koplas, 1996). Friends and romantic partners are invested in voluntary relationships, so their resolutions should reflect the desire to maintain rewarding interconnections; acquaintances lack investments and siblings are assured of relationship continuity, so their resolutions should evince little concern about disrupting interconnections (Laursen et al., 2001).

Summary

Social learning and development is a critical and at times overlooked element of a child's school experience. Experiences with bullying, exposure to and use of indirect forms of aggression, and managing conflicts with peers profoundly shape how a child will grow in her or his social interaction skills. Each of these topics represents a growing area of study in child development; moreover, each topic continues to be associated with many unanswered questions. There is a need to identify developmental differences and changes in the use of relationally- and socially-aggressive behaviors over time and between the genders using the field's newest measurements. There is also a need to capture the effect that the childhood use of relational and social aggression has on a child's ability to positively manage conflict on a day-to-day basis. Consequently, this study has been designed to evaluate and connect these two intuitively-related topics within the realm of child social development. In the next chapter, I will discuss the study's experimental design and data analysis plan developed in an attempt to examine the

relationships between the constructs of relational aggression, social aggression, interpersonal maturity (pro-social skills), and conflict resolution skills.

Chapter III

METHODS

In this study, I examined the rates of relational and social aggression, interpersonal maturity, and conflict resolution skills in a sample of children, both males and females, ages 8-17, from a manufacturing city in the mid-Atlantic United States (US). In this chapter, the individuals who participated in the study, the procedure that was followed to collect data, the instruments that were used to measure the constructs in the study, and finally, the research design and data analyses used to evaluate the research questions are described.

Participants

Participants in this study were children and adolescents from one private high school and two private elementary/middle schools in a manufacturing city in the mid-Atlantic US. In total, 128 children participated in the study. The children ranged in age from 8 to 17 years of age. At the time of the study, the students were either in the fourth, fifth, sixth, ninth, or tenth grade. Fifty-three percent of the students were in elementary/middle school and 47% of the students were in high school. Fifty point three percent of the students were male and 49.7% were female; 84% of the students identified as Caucasian, 4.6% as Biracial, 2.3% as African American, 2.3% as Latino, 1.4% as Asian, 2.1% as multi-racial, and 2.8% as other.

Procedure

Prior to the initiation of the current study, approval of the study was granted by the Duquesne University Institutional Review Board. Data were collected as part of the effectiveness trials for the Goodwill Girls curriculum, a group counseling curriculum that,

through psychoeducation and prosocial skill building, targets decreasing relational and social aggression in children and adolescents. Prior to the beginning of the study, researchers visited the three schools where data were to be collected and gave a presentation to school teachers, principals, parents, and other school stakeholders explaining the purpose and activities included in the curriculum and the study. At this point, the study consent forms were sent home to the parents of children who were eligible to participate in the study. A list of students was generated from the children and adolescents who had given verbal assent and whose parents had given written consent to take part in the study. Eligible students were randomized to either the experimental counseling group or a control group that did not receive the group counseling sessions during the experimental period, but had access to the intervention following the experimental period.

At the outset of the study, students completed pretest instruments, including the instruments that will be used for the purposes of this investigation and analyses. Participants were administered the protocol questionnaires in a group setting. Each protocol packet included the confidentiality policy for the study; the researchers who were administering the research protocol verbally explained the confidentiality policy to the participants. Confidentiality was further maintained by asking the students not to write their names on any materials associated with the study. Results were recorded in a de-identified database and study protocols were secured in a locked file cabinet.

Instruments

The purpose of this study was to evaluate differences in the frequency with which children and early adolescents use relationally- and socially-aggressive behaviors, and whether the use of these behaviors predicted children's or adolescents' peer conflict resolution skills. In

order to help evaluate these questions, the Young Adult Social Behavior Scale (YASB) and the Conflict Resolution Scale (CRS) were used to measure the constructs of relational aggression, social aggression, interpersonal maturity, and conflict resolution skills on these two instruments, respectively.

Young Adult Social Behavior Scale (YASB)

The YASB was created for the purpose of measuring self-reported behaviors that are used in friendships (Crothers et al., 2009). The YASB is comprised of 14 items based on a definition of indirect bullying that includes both socially-aggressive and relationally-aggressive behaviors, and also includes items measuring interpersonal maturity. The items of the scale are grouped into the following composites: Relational Aggression, Social Aggression, and Interpersonal Maturity. Relationally-aggressive behaviors are defined as the use of confrontational strategies to achieve interpersonal damage, including not talking to or hanging around with someone, deliberately ignoring someone, threatening to withdrawal emotional support or friendship, and excluding someone from a group (Crothers et al., 2009). Socially-aggressive behaviors include gossiping, social exclusion, isolation, and alienation. Finally, the interpersonal maturity scale measures an individual's ability to solve social problems in a positive, emotionally-appropriate manner.

The YASB has been assessed for readability and relevance for use with adolescent students. Sample YASB items include: "*When I am angry with someone, that person is often the last to know,*" "*When I am frustrated with my partner/colleague/friend, I give that person the silent treatment"* and, "*I intentionally exclude friends from activities to make a point with them.*" The original study validating the YASB utilized a sample of 629 students from a state university located in the mid-Atlantic region of the United States, with confirmatory factor analysis (CFA)

being used to examine the factor structure of the instrument (Crothers et al., 2009). Three separate theoretical models were tested using CFA, which is a more rigorous analysis technique than exploratory factor analysis because of the provision of both construct and discriminative validity evidence and the ability to test alternative models offered in the CFA (Kline, 2005).

Each item of the scale was measured through a five-point Likert scale ranging from "Never" to "Always." Because such items are considered ordered categorical with non-normal distributions (Muthén & Muthén, 1998), a maximum likelihood with robust standard errors and corrected test statistics for the parameter estimation in EQS 6.1 analysis software was chosen for analysis (Bentler, 2003). The Akaike Information Criteria (AIC; X2m+2[free parameters]) was used to assess which of the three models was the best fit, with the lowest AIC value considered to be the best fitting model. The Chi-Square values from the three alternative models are comparable but cannot be a test statistic (Kline, 2005). Other fit indices, such as the Comparative Fit Index, are not appropriate for assessing fit (the model's reproduced covariance matrix most closely resembling the original covariance matrix) across alternative models (Crothers et al., 2009). Based on the AIC values, the model representing the three factors of social aggression, relational aggression, and interpersonal maturity, had the best fit of the three alternative models.

Confirmatory Factor Analysis is considered a rigorous test of convergent and discriminant validity and the results from the analysis indicate that the items have good standard loadings on the hypothesized latent constructs, while not representing excessively high correlations among the factors (i.e., > .85; Kline, 2005). The largest correlation between the constructs occurred between social and relational aggression, which is consistent with previous results and theoretical perspectives regarding the global construct of indirect bullying, which

encompasses both social and relational aggression. With that consideration, there is still evidence that there is a meaningful difference between these two constructs (Crothers et al., 2009).

Conflict Resolution Scale

The Conflict Resolution Scale was created by Smith, Daunic, Miller, and Robinson (2002) and is divided into two parts. The scale is partially based on a scale created by Wheeler and Ladd in 1982. In part one of the scale, there are 25 items (e.g., CRS1), while part two has 22 items (e.g., CRS2). The CRS1 scales measure conflict resolution skills in children using 7 subscales: aggression, levels of disciplinary interventions, conflict-resolution styles, outside influences, need for help in solving problems, effects of poor communication on conflicts, and group aggression. Items on the CRS2 measures a child's efficacy in managing peer conflicts. The CRS 2 was adapted from a scale developed by Wheeler and Lad (1982). The scale describes scenarios of conflict and ask the rater to rate the perceived level of difficulty in managing conflictual scenarios. The items are rated on a 5-point Likert Scale (1 = Very Hard; 5 = Very Easy). Some examples of items on the scale are as follows: "When I have an argument with someone, we end up in a fight." "Some kids want to play a game. Asking them if you can play is __________for you." "Some kids are arguing about how to play a game. Telling them the rules is __________ for you" (Smith, Miller, & Robinson, 2002; Wheeler & Ladd, 1982). Reliability estimates obtained through Cronbach Alpha ranged from .45 to .89, while the reliabilities for the conflict and non-conflict subscales were .91 and .90, respectively (Smith et al., 2002). The present study utilized the CRS2 to measure how much efficacy individuals have in managing a given conflict situation. This measure was chosen as an effective means to measure each student's confidence in their own conflict resolution skills.

Research Design

In this study, I utilized a quantitative, quasi-experimental research design in which I evaluated whether a child's developmental status (age) as an independent variable had an effect on the self-perceived rate that a child or adolescent uses relationally-aggressive and socially-aggressive behaviors, as well as reported using behaviors of interpersonal maturity (dependent variables). A second inquiry was constructed in order to evaluate whether a child's gender (independent variable) affected how frequently a child uses relational aggression, social aggression, or prosocial skills (interpersonal maturity), and whether these differences are consistent between elementary/early middle school and early high school students. In the study's third area of investigation, I evaluated whether an individual's rates of relational aggression, social aggression, and interpersonal maturity (independent variables) predicted the magnitude of difficulty with which he or she resolves perceived conflicts (dependent variable).

There are a number of threats to internal and external validity that were considered prior to completing the analyses for this study. One is that the measures used for this study were included in a larger grouping of pre-test measures. Since the children were asked to complete many forms at once, their fatigue may have had an effect on their focus and consideration exhibited in answering the questions. The variability in fatigue was attempted to be controlled by having each child complete measures in a standardized order so there was consistency in the sequence of the administration. Similarly, there may have been examiner bias in the instructions or help given to children as they completed the questionnaires, as there were multiple test administrators in the study. This threat was also attempted to be controlled by having standardized instructions, and administrator training on test administration and what questions

could be answered. After the measures were administered, a debriefing session was held to establish if there were any variations to the administration protocol.

A third potential threat to internal validity is diffusion. This may have occurred if the children who had already completed the measures discussed the protocol with other children who were taking part in the study. This potential risk was attempted to be controlled by administering the test measures to all of the participants in a given school at the same time. There is also a possible threat to the external validity of this study in the form of threats to generalization. The current study was limited to elementary/middle and high schools that were willing to participate in a group counseling curriculum. Although a number of schools were approached to take part in the study, the schools that were willing to participate were private schools that were comprised of students from families with similar demographic characteristics, such as in their socioeconomic status. This was attempted to be controlled for by offering access to the study to all students in the designated grades and classes. There is also a possibility of selection bias, in that only children who were willing and had parents who were willing to consent to a group counseling curriculum targeting relationally- and socially-aggressive behaviors completed the surveys. Consequently, this may have affected the final sample of children who completed the study.

Data Analysis

In this study, I investigated the previously-hypothesized differences in the rates of relational aggression, social aggression, and interpersonal maturity across children's development from elementary/early middle school age to early high school age. I also investigated whether students' rates of relational aggression, social aggression, and interpersonal maturity predicted whether individuals identify difficulty in their perceived conflict resolution

skills. In order to statistically evaluate these questions, Multivariate analyses of variance (MANOVA) and multivariate regression models were utilized. What follows is a listing of research questions, hypotheses, and the statistical tests that were used to evaluate the questions.

Research question one. Do the rates with which children and early adolescents utilize relational aggression, social aggression, and interpersonal maturity vary between elementary/early middle school and early high school samples?

Hypothesis one. I hypothesized that high school students would use relationally- and socially-aggressive behaviors at higher rates than elementary/middle school students, but they would not report higher rates of interpersonal maturity than elementary/middle school students. It was also hypothesized that girls' use of relationally- and socially-aggressive behaviors in the elementary/middle school would exceed that of their male peers, while the rates of the use of relationally- and socially-aggressive behavior would be equally evidenced by male and female adolescents.

Statistical analysis one. A one-way MANOVA was used to evaluate the mean differences between elementary/middle school and high school students, across the three dependent variables (relational aggression, social aggression, and interpersonal maturity). This analysis was appropriate as the primary analysis to evaluate the first research question, as MANOVA is a statistical approach that is used to identify whether there are significant differences between given groups on multiple dependent variables.

Chi-square tests of independence were used to evaluate whether there were associations between age and elevated scores on relational aggression, social aggression, and interpersonal maturity variables. These analyses were appropriate to evaluate this question as the chi-square

test of independence is used to identify significant associations between categorical variables (age and whether or not the test score was significantly elevated).

Research question two. Are there gender differences between the reported rates of relational aggression, social aggression, and interpersonal maturity, and are these differences more pronounced for children who are in middle school as opposed to children who are in high school?

Hypothesis two. It was hypothesized that middle school females would engage in relational and social aggression more than middle school males, but that there would not be a significant difference in the interpersonal maturity of the males and females in students of this age. I also hypothesized that there would be no group differences between high school males and females related to relational aggression, social aggression, and interpersonal maturity.

Statistical analysis two. A two-way MANOVA was used to evaluate the mean differences between elementary/middle school and high school students, and males and females, across the three dependent variables (relational aggression, social aggression, and interpersonal maturity). This analysis was appropriate as the primary analysis to evaluate the second research question, as MANOVA is a statistical approach that is used to identify whether there are significant differences between given groups on multiple dependent variables.

Chi-square tests of independence were used to evaluate whether there were associations between gender and elevated scores on relational aggression, social aggression, and interpersonal maturity variables. These analyses were appropriate to evaluate this question as the chi-square test of independence is used to identify significant associations between categorical variables (gender and whether or not the test score was significantly elevated).

Research question three. Does a child's or adolescent's self-reported rate of relational aggression, social aggression, and interpersonal maturity predict the amount of perceived difficulty that a child will have in solving conflicts?

Hypothesis three. The higher a child or adolescent rates his or her use of relational aggression and social aggression, the more likely it is that the child or adolescent will report high rates of difficulty in resolving conflicts.

Statistical analysis three. A multivariate linear regression analysis was used to evaluate whether rates of relational aggression, social aggression, and interpersonal maturity are significant predictors of difficulty resolving conflicts positively. A multivariate linear regression analysis was chosen to answer this research question, as it is a statistical technique that evaluates whether predictor variables (relational aggression, social aggression, and interpersonal maturity) accurately predict results on an outcome variable (conflict resolution skills).

Chi-square tests of independence were used to evaluate whether there were associations between elevated conflict resolution scores and elevated scores on the relational aggression and social aggression factors on the YASB. These analyses were appropriate to evaluate this question as the chi-square test of independence is used to identify significant associations between categorical variables (whether or not the test score was significantly elevated).

Summary

In this study, I evaluated the rates of relational and social aggression of late elementary/early middle and high school students by considering their responses to the YASB and the CRS. These results were used to analyze group differences in rates of indirect bullying at different ages and genders. The results were also used to evaluate whether relational and social aggression as captured by the YASB was able to predict child conflict resolution skills as

measured on the CRS. In the next chapter, I review the results of the statistical analyses used in response to the research questions posed.

Chapter IV

RESULTS

In this chapter, I provide an evaluation of the research questions posed in the previous chapter by presenting the results of multiple data analyses. I review the descriptive statistics and the preliminary analyses I conducted, followed by a presentation of the data analysis that corresponds to each of the relevant study research questions.

Descriptive Statistics

The data for these analyses were collected from the study sample in the manner discussed in the previous chapter. The data set studied included 128 participants. Of those 128 participants, 74 were in the fourth and fifth grade group, which, for the purposes of this investigation was considered to be the middle school group, while 54 students were in the ninth or tenth grade, which were considered to be the high school group. Overall, 64 females and 64 males completed the surveys. Due to missing data and pairwise exclusion, the *N* for each instrument ranged from 114-121 subjects participating. The descriptive statistics for the instrument means and standard deviations are presented in Table 1.

Table 1

Descriptive Statistics

Scale	*N*	*M*	Standard Deviation
YASB RA	121	9.76	2.71
YASB SA	120	9.01	2.56
YASB IM	121	8.77	3.01
CRS2	114	50.33	19.99

Preliminary Analyses

Missing Data

All of the data collected were evaluated for errors and missing data. Five percent of the cases for the YASB-RA, YASB-SA, and YASB-IM data had at least one item missing. Ten percent of the CRS2 data had at least one missing item. These figures are considered to be a proportionally small quantity of the overall data set and there did not appear to be any sort of pattern to the data that was missing. As such, the cases that contained missing data were removed from the dataset using listwise deletion (Green & Salkind, 2008).

Outliers

Given the important impact that outliers may have on the study data analyses, multiple outlier analyses were conducted. First, box plots were developed to evaluate each of the dependent variables for univariate outliers. Next, a Mahalanobis Distance was conducted to evaluate for multivariate outliers. This is particularly important, as multivariate outliers can negatively affect regression analyses. Results from both analyses indicated that there were no significant univariate or multivariate outliers and so no further removal of data was necessary.

Reverse Scoring

In scoring the dependent variables, negatively worded items were reversed scored for all items. Items on the YASB-RA, YASB-SA, and the CRS2 were reverse scored so that higher scores indicated higher levels of the construct being measured. Items on the YASB-IM were already scored in a positive direction, so no further manipulation of the scores was necessary.

Subscales

The items that comprise the YASB-RA, YASB-SA, and YASB-IM were presented to the participants as a 14-item scale. Items on the scale were then transformed into the three subscale factors. These factors were established through confirmatory factor analysis (Crothers et al., 2009), with the items loading on the factors as described in Table 2. The CRS2 is comprised of 22 items, the results of which are combined to comprise a total score (Smith et al., 2002).

Table 2

Items from the Young Adult Social Behavior Scale (YASB)

Factors	YASB subscale items
Relational Aggression Factor	1. When I am angry with someone, that person is often the last to know. I will talk to others first. 2. When I am frustrated with my partner/colleague/friend, I give that person the silent treatment. 9. I criticize people who are close to me. 11. I intentionally exclude friends from activities to make a point with them.

Factor	Item
	13. When I am angry with a friend, I have threatened to sever the relationship in hopes that the person will comply with my wishes.
Social Aggression Factor	4. When I do not like someone's personality, I derive a certain degree of pleasure when a friend listens to and agrees to my assessment of the person's personality.
	5. I contribute to the rumor mill at school/work or with my friends and family.
	7. I break a friend's confidentiality to have a good story to tell.
	8. I confront people in public to achieve maximum damage.
	12. I have attempted to steal a rival's friend.
Interpersonally-Mature Factor	3. I deal with interpersonal conflict in an honest, straightforward manner.
	6. I honor my friend's need for secrets of confidentiality.
	10. I respect my friend's opinions, even when they are quite different from my own.
	14. Working through conflicts with friends makes our friendship stronger.

Multivariable Analysis of Variance

In order to evaluate the first and second research questions, four separate Multivariable Analysis of Variance analyses (MANOVA) were conducted. In the first analysis, I evaluated whether there were mean differences between different age groups on the three dependent variables: YASB-RA, YASB-SA, and YASB-IM. In the second analysis, I evaluated whether

there were mean differences between males and females on the same three dependent variables (e.g., YASB-RA, YASB-SA, and YASB-IM). The third and fourth analyses were conducted in order to evaluate the mean differences between males and females within the high school sample, as well as within the middle school sample, respectively.

Statistical Assumptions

In order to compute valid MANOVA's, each of three main statistical assumptions must be adequately addressed. These assumptions will be briefly discussed in this section. The first assumption is that dependent variables are multivariately normally distributed for each population, with each population being defined by the levels of the factor. In order to evaluate the normality of each population, I utilized the Kolmogorov-Smirnov test of normality. This test indicated that both the YASB-RA and the YASB-SA violated the assumption of normality for at least one level. Further analysis of these distributions suggested that each distribution was positively skewed and had a high Kurtosis. In an attempt to manage these violations, log10 transformations were conducted on both distributions. After this correction, both variables met the normality assumption and no further analysis was necessary.

The second assumption associated with MANOVA is that population variances and covariances among the dependent variables are the same across all levels of the factor. This assumption was evaluated using Box's Test of Equality of Covariance Matrices. Results of this test for each analysis suggested that the second assumption was met.

The third statistical assumption associated with MANOVA is that the participants are randomly sampled, and that the score on a variable for any one participant is independent from the scores on this variable for all other participants. The careful collection of all data ensured that this independence assumption was met for all analyses.

MANOVA Analyses

A one-way MANOVA was conducted to determine the effect of the two age groups (high school and middle school) on the three dependent variables, YASB-RA, YASB-SA, and YASB-IM. No significant differences were found among the three dependent measures, Wilks Λ = .97, F (3, 116) = 1.17, $p < .33$. As there were no significant differences between variables, no post hoc analyses were necessary. Analysis means are listed below in Table 3.

Table 3

Means and Standard Deviations on the Dependent Variables at Analysis 1

	YASB-RA		YASB-SA		YASB-IM	
Group	*M*	SD	*M*	SD	*M*	SD
High School	10.11	2.95	9.28	2.24	8.47	2.69
Middle School	9.53	2.49	8.79	2.79	9.04	3.24

For the second analysis, a one-way MANOVA was conducted to determine the effect of the two gender groups on the three dependent variables: YASB-RA, YASB-SA, and YASB-IM. No significant differences were found among the three dependent measures, Wilks Λ = .95, F(3, 116) = 1.88, $p < .14$. As there were no significant differences between variables, no post hoc analyses were necessary. Analysis means are listed below in Table 4.

Table 4

Means and Standard Deviations on the Dependent Variables for Analysis 2

	YASB-RA		YASB-SA		YASB-IM	
Gender	*M*	SD	*M*	SD	*M*	SD
Female	9.83	2.62	8.63	2.33	8.43	2.75
Male	9.75	2.81	9.38	2.74	9.15	3.24

For the third analysis, a one-way MANOVA was conducted to determine the difference in means between the two high school gender groups on the three dependent variables: YASB-RA, YASB-SA, and YASB-IM. No significant differences were found among the three dependent measures, Wilks Λ = .97, $F(3, 49) = .60$, $p < .62$. As there were no significant differences between variables, no post hoc analyses were necessary. Analysis means are listed below in Table 5.

Table 5

Means and Standard Deviations on the Dependent Variables for Analysis 3

	YASB-RA		YASB-SA		YASB-IM	
Gender (High School)	*M*	SD	*M*	SD	*M*	SD
Female	10.37	2.52	9.04	2.24	8.29	2.42
Male	9.90	2.95	9.48	2.26	8.62	2.93

For the fourth analysis, a one-way MANOVA was conducted to determine the difference in means between the two middle school gender groups on the three dependent variables: YASB-RA, YASB-SA, and YASB-IM. No significant differences were found among the three dependent measures, Wilks Λ = .95, $F(3, 63) = 1.21$, $p < .31$. As there were no significant

differences between variables, no post hoc analyses were necessary. Analysis means are listed below in Table 6.

Table 6

Means and Standard Deviations on the Dependent Variables for Analysis 4

	YASB-RA		YASB-SA		YASB-IM	
Gender (Middle School)	*M*	SD	*M*	SD	*M*	SD
Female	9.47	2.66	8.36	2.39	8.53	2.98
Male	9.61	2.32	9.29	3.16	9.65	3.47

Chi-square Analysis

As there were no significant differences between the hypothesized variables on the given factors, chi-square tests for association were conducted to evaluate whether there were relations between self-reported high scores on the YASB-RA, YASB-SA, and YASB-IM and the gender and age variables. In order to complete these analyses, the ordinal data of the above dependent variables had to be transformed into nominal data. This was done by creating elevated score and non-elevated score groups for data for the YASB-RA, YASB-SA, and YASB-IM. These categories were created by defining an elevated score as any score that was one standard deviation or more above the mean of the scale. Categories based on this same rule were made for each variable.

There are two statistical assumptions that must be considered when completing chi-square tests for association. The first assumption is that the two variables being evaluated should be measured using categorical data. The above-described data transformations ensured that the data in the analysis was organized as nominal data and so this assumption was met for the

following analyses. The second statistical assumption is that the analysis consists of two or more independent groups. This assumption was met for each of the analyses conducted as part of this study.

Age Group Chi-square Analyses

A chi-square test of independence was performed to examine the relationship between students' age and their self-reported ratings in their use of relational aggression as measured by the YASB-RA. The relationship between these variables was significant, X^2 (1,121) = 4.37, p = 0.04. This finding suggests that more high school than middle school students scored in the elevated range on the YASB-RA. The full results of this analysis are presented in Table 7.

Table 7

Age and YASB-RA Chi-Square Analysis

		YASB-RA		
		Non-Elevated Score	Elevated Score	Total
High School	Count	40	13	53
	% Within Age Group	75.5%	24.5%	100%
	% Within YASB-RA	39.6%	65.0%	43.8%
Middle School	Count	61	7	68
	% Within Age Group	89.7	10.3%	100.0%
	% Within YASB-RA	60.4%	35.0%	56.2%
Total	Count	101	20	121

A chi-square test of independence was also performed to examine the relationship between students' age and their self-reported ratings in their use of social aggression as measured

by the YASB-SA factor. The relationship between these variables was not significant, X^2 (1,121) = .29, $p = 0.59$. This suggests that high school students were no more likely than middle school students to have scored in the elevated range on the YASB-SA. The full results of this analysis are reported in Table 8.

Table 8

Age and YASB-SA Chi-Square Analysis

		YASB-SA		
		Non-Elevated Score	Elevated Score	Total
High School	Count	45	8	53
	% Within Age Group	84.9%	15.1%	100%
	% Within YASB-SA	42.9%	50.0%	43.8%
Middle School	Count	60	8	68
	% Within Age Group	88.2%	11.8%	100%
	% Within YASB-SA	57.1%	50.0%	56.2%
Total	Count	105	16	121

A chi-square test of independence was also performed to examine the relationship between students' age and their self-reported ratings in their use of interpersonally-mature behavior as measured by the YASB-IM. The relationship between these variables was not significant, X^2 (1,121) = 2.61, $p = 0.11$. This suggests that high school students were no more likely than middle school students to report demonstrating pro-social behavior as measured by the YASB-IM. The full results of this analysis are provided in Table 9 below.

Table 9

Age and YASB-IM Chi-Square Analysis

		YASB-IM		
		Non-Elevated Score	Elevated Score	Total
High School	Count	46	7	53
	% Within Age Group	86.8%	13.2%	100.0%
	% Within YASB-IM	47.4%	29.2%	43.8%
Middle School	Count	51	17	68
	% Within Age Group	75.0%	25.0%	100.0%
	% Within YASB-IM	52.6%	70.8%	56.2%
Total	Count	97	24	121

Gender Chi-square Analyses

A chi-square test of independence was performed to examine the relationship between students' gender and their self-reported ratings in their use of relational aggression as measured by the YASB-RA. The relationship between these variables was not significant, X^2 (1,121) = .28, p = 0.60. This suggests that female students are equally likely as male students to score in the elevated range on the YASB-RA. The full results of this analysis are reported in Table 10.

Table 10

Gender and YASB-RA Chi-Square Analysis

		YASB-RA		
		Non-Elevated Score	Elevated Score	Total
Female	Count	49	11	60
	% Within Gender	81.7%	18.3%	100.0%
	% Within YASB-RA	48.5%	55.0%	49.6%
Male	Count	52	9	61
	% Within Gender	85.2%	14.8%	100.0%
	% Within YASB-RA	51.5%	45.0%	56.2%
Total	Count	101	20	121

A chi-square test of independence was also performed to examine the relationship between students' gender and their self-reported ratings in their use of social aggression as measured by the YASB-SA. The relationship between these variables was significant, X^2 (1,121) = 4.46, $p = 0.04$. This suggests that male students were more likely than female students to score in the elevated range on the YASB-SA. The full results of this analysis are provided in Table 11.

Table 11

Gender and YASB-SA Chi-Square Analysis

		YASB-SA		
		Non-Elevated Score	Elevated Score	Total
Female	Count	56	4	60
	% Within Gender	93.3%	6.7%	100.0%
	% Within YASB-SA	53.3%	25.0%	49.6%
Male	Count	49	12	61
	% Within Gender	80.3%	19.7%	100.0%
	% Within YASB-SA	46.7%	75.0%	50.4%
Total	Count	105	16	121

A chi-square test of independence was performed to examine the relationship between students' gender and their self-reported ratings in their use of pro-social skills as measured by the YASB-IM. The relationship between these variables was not significant, X^2 (1,121) = 1.75, p = 0.19. This suggests that female and male students are equally as likely to report the use of pro-social skills on the YASB-IM. The full results of this analysis can be found in Table 12.

Table 12

Gender and YASB-IM Chi-Square Analysis

		YASB-IM		
		Non-Elevated Score	Elevated Score	Total
Female	Count	51	9	60
	% Within Gender	85.0%	15.0%	100.0%
	% Wtihin YASB-IM	52.6%	37.5%	49.6%
Male	Count	46	15	61
	% Within Gender	75.4%	24.6%	100.0%
	% Within YASB-IM	47.4%	62.5%	50.4%
Total	Count	97	24	121

Multivariate Linear Regression Analysis

In order to evaluate the third research question, a multiple regression analysis was conducted. The analysis was used to evaluate whether children's and adolescents' scores on the YASB-RA, YASB-SA, and YASB-IM would be able to predict a significant amount of the variance of their responses on the CRS2.

Statistical Assumptions

The first assumption that needs to be considered when conducting a multivariate regression analysis is to ensure that the dependent variable is normally distributed in the population for each combination of the levels of the independent variables. This assumption was met, as all of the normality issues for each variable were managed as addressed previously.

The second assumption is that the population variances of the dependent variables are the same for all combinations of levels of the independent variables. This assumption was satisfactorily met, as there were no concerns of heteroscedasticity. The third assumption is that the cases represent a random sample from the population, and the scores are independent from each other from one individual to the next. The fourth assumption is that the cases represent a random sample from the population, and that the scores on variables are independent of other scores on the same variables. This assumption was also met.

Analysis Results

A multivariate regression analysis was conducted to evaluate the predictive ability of scores on the YASB-RA, YASB-SA, and YASB-IM upon the CRS2. Only one of the three predictor values, YASB-IM, was identified as being significantly related to the CRS variable, $F(1,111) = 4.47$, $p = .04$. The sample multiple correlation coefficient was .039, suggesting that 3.9% of the variance of the CRS2 scores can be accounted for by the YASB-IM. In Table 13, the indices are presented to indicate the relative strength of the individual predictors.

Table 13

Partial Correlations of Each Predictor Variable and the CRS2

Predictors	Correlation between each predictor and the CRS2
YASB-RA	.05
YASB-SA	-.02
YASB-IM	.20*

Note: * denotes that p < .05

Chi-square Analysis

As the regression model did not identify a relationship between YASB-RA or YASB-SA and the CRS2, chi-square tests for association were conducted to evaluate whether there were associations between the self-reported high scores on the YASB-RA and YASB-SA and the CRS2.

YASB-RA. A chi-square test of independence was performed to examine the relationship between students' scores on the YASB-RA and the CRS2. The relationship between these variables was not significant, X^2 (1,114) = .79, p = 0.38. This suggests that individuals who report high scores on the YASB-RA are as equally likely as those reporting low scores as having high scores on the CRS2. The full results of this analysis can be found in Table 14.

Table 14

CRS2 and YASB-RA Chi-Square Analysis

		CRS2		
		Non-Elevated Score	Elevated Score	Total
YASB-RA Non-Elevated Scores	Count	83	19	102
	% Within YASB-RA	81.4%	18.6%	100.0%
YASB-RA Elevated Scores	Count	11	1	12
	% Within YASB-RA	91.7%	8.3%	100.0%
Total	Count	94	20	114

YASB-SA. A chi-square test of independence was performed to examine the relationship between students' scores on the YASB-SA and the CRS2. The relationship between these variables was not significant, X^2 (1,114) = .78, p = 0.79. This suggests that individuals who

report high scores on the YASB-SA are as likely as those reporting low scores to have high scores on the CRS2. The full results of this analysis can be found in Table 15.

Table 15

CRS2 and YASB-SA Chi-Square Analysis

		CRS2		
		Non-Elevated Score	Elevated Score	Total
YASB-SA Non-Elevated Scores	Count	82	17	99
	% Within YASB-SA	82.8%	17.2%	100.0%
YASB-SA Elevated Scores	Count	12	3	15
	% Within YASB-SA	80.0%	20.0%	100.0%
Total	Count	94	20	114

Summary

The results of the present study suggested that no mean differences existed between students' scores on the measures of relational aggression, social aggression, and interpersonal maturity across the variables of age and gender. Categorical chi-square analyses revealed that there was a relationship between age and those students who reported elevated relational aggression scores, with more high school students reporting engaging in relational aggression than middle school students. Similarly, categorical chi-square analysis indicated that boys were more likely to report using socially-aggressive behaviors than girls. Both multivariate regression analysis and chi-square analysis suggested that there was no relationship between relational aggression or social aggression scores with conflict resolution scores. However, interpersonal maturity was identified as being significantly related to conflict resolution scores, with 3.9% of

the variance of the conflict resolution scores accounted for by the interpersonal maturity scores. These results will be discussed further over the course of the next chapter.

Chapter V

Discussion

In this chapter, I will discuss the findings of the current study. Along with the results obtained from this study, I will also consider the implications for clinical practice that are suggested by the information provided through this investigation. Finally, I will present the limitations of the study as well as proffer recommendations for future research.

As mentioned in chapters one and two of this dissertation, bullying continues to be an extremely relevant topic to the field of child and school psychology, as researchers and practitioners are aware of its prevalence and pernicious effects. Increasingly, researchers are developing new understandings of how and why childhood interpersonal aggression occurs. As this research is being completed, school, family, and community systems are changing social mores and expectations as to what types of behaviors are acceptable in relation to aggressive behaviors. Also, many school systems are responding to the legal standards in some states requiring that schools institute systemic and systematic interventions to attempt to arrest and diminish bullying behavior in school.

Indeed, it may be that such measures are having an ever-evolving impact on the social learning environments of children. This is one of the many reasons why it is important to consider developmental differences in how children use different forms of bullying behaviors, as the content, delivery system, and follow-up practices will likely need to be tailored to the needs and characteristics of any given group of students requiring secondary and tertiary intervention. In this study, differences were evaluated between the age and gender of children and adolescents and how often these children and early adolescents reported engaging in relational and social aggression and pro-social behaviors. Therefore, the overall goal of this study was to achieve a

better understanding of how the use of relational and social aggression can change based on a child's or adolescent's age and gender, as well as of the relationships between relational aggression, social aggression, interpersonal maturity, and conflict resolution skills.

Research Findings

This study represents the results of an investigation composed of three research questions. In the first research question, participants were assessed regarding whether scores on a self-reported measure of relational aggression, social aggression, and interpersonal maturity varied significantly between middle and high school students in this sample. In the second research question, I posed an inquiry regarding whether there were gender differences on measures of relational aggression, social aggression, and interpersonal maturity in this sample. Finally, in the third research question, I measured whether participant scores on measures of relational aggression, social aggression, and interpersonal maturity were predictive of scores on a self-reported measure of conflict resolution skills.

Research Question One

Results from the initial multivariate analysis of variances did not support the hypothesis for the first research question, as there were no mean differences in any of the variables between middle and high school students. Thus, middle and high school students in this sample did not significantly vary in their self-reported use of relational and social aggression, nor in their self-reported behaviors of interpersonal maturity. This result is interesting as it does not reflect the expectations of the developmental trajectory of relational and social aggression that is generally reflected in the literature (Björkqvist et al., 1992). There are a couple of reasons that may explain why this difference was not apparent in the data. It is possible, for example, that these results are an indication that children are learning to use relational and social aggression at

earlier ages, and therefore not showing differences between middle school and high school ages. This is a possibility, inasmuch as an increased focus on bullying intervention earlier in children's school experience may be leading children to subvert aggressive behaviors into indirect forms of aggression at an earlier age than suggested in previous studies (Archer & Coyne, 2005). Another possibility is that differences were not apparent between high school and middle school students, as participants were able to recognize socially-acceptable responses on the measure and endorsed these choices.

Chi-square analyses were also conducted to evaluate whether there was an association between age and elevated scores related to relational aggression, social aggression, and interpersonal maturity. Similar to the MANOVA analyses, there were no significant associations between age and self-reported social aggression or interpersonal maturity. There was, however, a significant association between age and elevated scores on the relational aggression factor of the YASB, suggesting that adolescents were more likely to report using marked relational aggression (e.g., scores over one standard deviation above the mean for this population) in comparison to younger students.

These results differ than those achieved through the MANOVA, suggesting that although the sample of students in this study did not score higher on the relational aggression factor on the YASB as adolescents, those who have a tendency toward the use of relational aggression in the older sample of children tended to report using relational aggression more than children at in the younger sample. Such a finding may imply that children who use relational aggression are aware of their tendencies toward such behavior and are likely thoughtful and purposeful in their indirect aggressive behaviors. Additionally, it may also stand to reason that children who practice using

relational aggression in their friendships likely become more effective at these behaviors over time.

Research Question Two

The hypothesis developed for the second research question suggested that middle school females would engage in relational and social aggression more than middle school males, but that there would not be a significant difference in self-reported interpersonal maturity scores according to gender. None of the MANOVA analyses conducted supported the hypothesis that there would be mean differences in males' and females' relational and social aggression scores; however, the hypothesis of no differences between males' and females' interpersonal maturity skills was supported. Thus, in this sample, boys report using relational and social aggression at similar rates to girls as early as middle school, which may suggest that boys are beginning to use relational and social aggression earlier in their development than previously thought.

The observation that girls and boys are also exhibiting similar rates of interpersonal maturity at the same age suggests that the students in this sample equally perceive themselves as having an adequate amount of ability to navigate social situations. One explanation for these unexpected results may be that the increased prohibition of physical aggression for boys in terms of societal expectations may be associated with boys accommodating to this more and using the indirect forms of aggression that have been previously associated with girls at younger ages. As the results of this study suggest that boys are using relational and social aggression at a younger age than previously documented, then it is not surprising that relational aggression and social aggression scores continue to remain steady between the sexes in adolescence.

As with the first research question, chi-square analyses were conducted to evaluate whether there was an association between gender and the self-reported use of relational

aggression and social aggression. Results revealed that there was no association between elevated relational aggression scores and gender. However, there was a significant association between gender and elevated social aggression scores. The data suggested that boys were significantly more likely to have an elevated social aggression score than were girls. This is a rather surprising finding, given that socially-aggressive behaviors are theorized to require the highest level of social sophistication, and as such are expected to be used more frequently by girls throughout childhood, who enjoy more intricate social networks than boys (Archer & Coyne, 2005). Instead, the findings of this research suggest that boys were more likely than girls to utilize marked social aggression to ostracize and victimize other children.

A second possibility regarding this significant finding may be reflective of the previously-mentioned notion that these results may be affected by bias in self-reporting. It is often the case that when individuals are completing self-report measures, they tend to under-report problem behaviors (Huizinga & Elliott, 1986). Consequently, it is possible that this result is a function of girls recognizing the appropriate prosocial answers to questions regarding social aggression and correspondingly answering with a greater degree of social sensitivity than boys.

Research Question Three

Results from multivariate regression analysis did not support the research question three hypothesis that the higher a child or adolescent rates his or her use of relational and social aggression the more likely that the child will report impaired scores on the conflict resolution scale. This result suggests that individuals are not using relational and social aggression because they perceive themselves as having difficulty in knowing how to solve conflict. Instead, these individuals likely choose to engage in relational and social aggression instead of more prosocial forms of social interactions, as they appear more attractive to the child's needs for power and

status (Evans & Smokowski, 2016). Indeed, one of the reasons children may actively choose to engage in aggressive behavior is that the child or adolescent is interested in seeking out the power differentials that allows his or her aggressive behaviors to be successful when used with a socially-weaker peer.

A chi-square analysis was also conducted to evaluate if there were associations between those individuals who had elevated self-reported relational and social aggression behaviors and who had elevated conflict resolution scores. Again, surprisingly, no significant associations were found across any of these analyses. This is further evidence that those individuals who endorsed using relational and social aggression at elevated levels did not also identify having significant conflict resolution concerns. These results are similar to previous studies that suggest that those who utilize relational and social aggression are doing so to seek the benefits of these behaviors, not using relational and social aggression as a means to get social interaction needs met when they have skill deficits in conflict resolution. One of the likely perceived benefits that the indirect bully seeks is social status and dominance over their peers (Reijntjes, Vermande, Thomaes, Goossens, Olthof, Aleva, & Meulen, 2015). It will be particularly important to further identify the qualities of these type of perpetrators, as traditional social skill development strategies will likely not change these bullies' behavior.

Clinical Implications of the Present Study

Although the results of this study were not consistent with the anticipated findings of the developmental trajectory of childhood indirect bullying in many ways, there are insights that can inform the future practice of psychology in these areas. The most relevant finding was that there was no association between the use of relational and social aggression and deficits in conflict resolution skills. This suggests that children who are engaging in socially- or relationally-

aggressive behaviors are not doing so because they do not recognize what a prosocial way to solve a problem would be because of a skills deficit, but instead that they may prefer to engage in relationally- or socially-aggressive behavior because they are gaining access to desirable resources (e.g., social standing, access to desirable relationships) or are negatively reinforced by removal of threats to their power.

This difference may inform what types of interventions would be necessary to change the behavior of an individual who is likely to engage in relational or social aggression. For example, when overt forms of bullying are closely monitored, covert forms of aggression are more likely to increase, as children and adolescents still desire power and access to resources (Archer & Coyne, 2005). One proposed way to help develop comprehensive bullying intervention is to add skill-building curricula to anti-bullying programs in order to facilitate prosocial development. This form of intervention would be most useful with those children who use indirect aggression reactively and may not have developed other, more effective social skills. Results from the current study suggest that although this would be a useful universal or targeted intervention, those who have already begun using relational and social aggression instrumentally likely need to have additional intervention to not only teach prosocial skills, but also to help the individual choose to buy in and engage in prosocial behaviors for long term benefits (e.g., emotionally-intimate and close friendships, a dependable social circle) as opposed to the immediate benefits that may come from relational and social bullying. One way to do this is to work with bullying students to recognize to seek eminence, or recognition as a person with status, over dominance (Kolbert & Crothers, 2003). In order to do this, professionals will have to work with the bullying individual to recognize that they can obtain status in positive ways that will lead to fewer long

term difficulties that through means that seek to dominate others. This will help shift the motivations of those individuals who are prone to relational and social aggression.

Second, the lack of a difference between in relational and social aggression scores at different ages or gender in the general sample suggest that it may make sense to begin to consider interventions at the middle school, as opposed to expecting that some children, especially boys, are not using relational and social aggression until they are older. This earlier intervention point could help ensure that rates of relational and social aggression remain low into adolescence.

A third important consideration for the future practice of psychology is that there is a subset of children who are separating themselves as having elevated scores on relational and social aggression. That number increased significantly between the middle and high school students. This suggests that there is a need to develop further screening processes to help identify children who may be prone to demonstrating these forms of aggression. This will be particularly important, as these children seem to need a different form of intervention than the general student population (e.g., a Tier II or Tier III intervention).

Limitations

Although there are many interesting conclusions that can be drawn from the present results, the results should be considered with a fair amount of caution. There are a number of limitations that need to be discussed regarding the present study that contextualize the generalizability of the given results. The first limitation that needs to be considered is the study's sample. All of the participants were invited to participate in the study attend schools that were willing to take part in a group curriculum study during their school day. They were also children who were part of families who were actively willing for their child or adolescent to

participate in a multiple-week group curriculum. These conditions may have selected for a certain type of participant and may have affected the current results. Also, data were collected at three schools that had similar middle class suburban schools with limited ethnic and socioeconomic diversity. These conditions were unavoidable, as these were the schools that were willing to participate in the study. However, such conditions may have an impact on how well these results can be generalized to other populations.

A second limitation of this study is the cross-sectional nature of the data. The present data was collected from children across multiple ages. This data is then used to make inferences about possible developmental trends regarding the use of relational and social aggression. As these inferences are made about different children at different ages, these inferences will need to be made with caution. The study would be more strongly supported if data were able to be taken from the same children as part of a longitudinal study.

A third limitation of the study is that all of the data is reliant upon the use of self-report measures. This is a potential issue, as individuals may have underestimated their use of negative behaviors, such as relational and social aggression. They may have also overestimated positive behaviors such as conflict resolution skills and interpersonal maturity. The slightly skewed distributions for both relational and social aggression variables suggest that this could be the case. That being said, the distributions were not so skewed that they could not be managed with traditional data transformations, suggesting that the data can be validly interpreted. A better alternative would have been to pair self-report measures with teacher report measures and direct behavior observation to develop a multimodal understanding of each child's behavior. Unfortunately, that was beyond the scope of the present study.

Overall, the results of this study are valid and worth considering. However, as with all studies, the results should be considered within the proper scope and context that the methods and data allow.

Recommendations for Future Research

This study represented an examination of the developmental trends of relational and social aggression in school-aged children, as well as how relational and social aggression could affect conflict resolution skill development. The study topic of aggression and school bullying is one that continues to be ripe for further exploration, and the current study has continued to open up possible avenues for continued research. First, the present study made inferences about the development of relational and social aggression in children using a cross-sectional research design. In the future it would be useful to conduct a similar and more diverse study using a longitudinal design, so as to be able to make direct observations about the development of these behaviors and motivations across the general population of students. Archer and Coyne's (2005) review helped to bring some overarching understanding of the development of relational and social aggression as well as gender differences in the use of these behaviors. The current study's results make some very early indication that there may be changes in the onset and development of these behaviors for children. Future research would be useful in further establishing the developmental patterns in the use of indirect aggression across elementary school, middle school, and high school, as these seem to be the sensitive periods for the development of these behaviors. It would also be useful to establish a way to be able to pair rating forms with behavior observations of situations that are likely to lead to relational or social aggression. Notwithstanding, these behaviors are very difficult to study using behavior observation due to

the naturally clandestine nature of the behaviors. Perhaps, some contrived situations could be developed to possibly capture children's tendencies to use these behaviors in a systematic way.

Another important area for future research is further investigation of the factor structure of the YASB at different ages. Crothers' and colleague's scale was important in demonstrating that relational aggression and social aggression are in fact two separate concepts. This is in opposition to previous assertions made by Archer and Coyne (2005) suggesting that relational and social aggression were essentially describing one construct. The initial factor analyses were conducted with data from a sample of college students (Crothers, Schreiber, Field, & Kolbert, 2008). It will be very useful to the field to investigate the scale and its factor structure with younger children. It is possible that the structure may be different for children at different ages. It would also be useful to develop a large normative sample of children at different ages to continue to get a fuller idea of the expected rates of relational and social aggression of children at different ages.

Finally, a third area for future study is developing means to screen and identify individuals who are demonstrating significant tendencies to engage in relational and social aggression and continue to develop and tailor interventions to remediate these behaviors in children. This study has helped to establish that there is a group of children who have high tendencies to engage in relational and social aggression. These children do not seem to have difficulties recognizing socially appropriate ways to manage conflict in social situations, but continue to use coercive and manipulative behaviors, instead. Current interventions generally focus on monitoring and managing overtly-aggressive behavior or teaching prosocial skills to avoid the development of these negative behaviors (Field, Kolbert, Crothers & Hughes, 2009; Olweus, 2010). It is possible that a subgroup of likely perpetrators of relational and social

aggression exists that will not be appropriately managed through either of these means of intervention. It will be important to carefully identify these children and develop interventions to teach them to choose to make prosocial choices, even though there may be immediate benefit to relationally- and socially-aggressive choices. It is likely that these interventions will need to consider and manage motivational factors of the children's behavior, as opposed to simply policing negative behaviors or trying to teach simple prosocial skills.

Summary

Conflict and bullying in school settings are critical topics in managing the safety of children across their educational development. As this focus becomes greater, there will be a continued need for investigation of indirect forms of aggression as a troubling form of bullying. Results from the present evaluation suggest that the developmental progression of indirect forms of aggression and early gender differences in these forms of aggression may be evolving with the new and increased scrutiny that is being given to childhood aggression. These results also suggest that the bullies who uses indirect forms of aggression are socially skilled learners, and that changing these behavioral tendencies may require sophisticated means of motivation and behavior change. All of these results suggest that it is imperative that research into these topics continue and in developing high-quality evidence-based intervention to combat this common problem in children and adolescents.

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