The Pennsylvania State University

The Graduate School

College of Education

THE RELATIONSHIP AMONG TYPES OF AGGRESSION, PRO-SOCIAL

BEHAVIOR, SEX, AND PERCEIVED EMOTIONAL DISTRESS

A Dissertation in

Counselor Education

by

Danis Temofonte Simmons

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Education

May 2008

The thesis of Danis Temofonte Simmons was reviewed and approved* by the following:

Richard J. Hazler
Professor of Counselor Education
Dissertation Advisor
Chair of Committee

JoLynn V. Carney
Professor of Counselor Education

Elizabeth A. Mellin
Professor of Counselor Education

James E. Johnson
Professor of Early Childhood Education

Spencer G. Niles
Professor of Counselor Education
Head of the Department of Counselor Education

*Signatures are in file in the Graduate School

ABSTRACT

This study was designed to examine forms of aggression and their relationship to sex, and emotional distress. Participants in the study were fourth grade boys and girls (n=91) from a small, rural elementary school. Self-report measures used included a peer nomination form and an intent attributions and feelings of distress scale. Four hypotheses were posed: 1. Boys will be identified as more overtly aggressive than girls; 2. Girls will be identified as more relationally aggressive than boys; 3. Girls will express higher levels of emotional distress than boys; and, 4. The degree of pro social identification by peers versus the degree of overt or relational aggression will be related to emotional distress.

The first two hypotheses were conducted using t-tests. Results indicated that boys were significantly more overtly aggressive than girls and similar to girls in relational aggression. A one-way ANOVA and Tukey comparisons were completed to examine hypotheses three and four. Overall, there was no significant difference between the emotional distress of boys and girls on the ANOVA. Tukey comparisons showed, however, that pro social girls were significantly less emotionally distressed over stories of relational aggression than other groups in the survey. These results suggest possible trends worth future study. Limitations of the study, implications and suggestions for future research are included.

Table of Contents

List of Tables

ACKNOWLEDGEMENTS

I wish to dedicate this work to my three families, whose love of higher education and great care have supported and encouraged me along my educational journeys over the last 40 years.

First, my biological family, my parents, Thomas and Joan Temofonte, and my brother and sister-in-law, Tom and Carol Temofonte. Your love and support have meant the world to me. Also, my niece and nephews, aunts and uncles, and cousins, all too numerous to name, thank you for cheering me on over the years.

Next, to my second family, Frank Simmons, Sue Buchanan, Jerry Carroll, Trudi and Jan Tooke, Brenda and David Cowger, Theodosia and Mike Spewock, and many more, I thank you for your persistent encouragement, love, and help in pursuing my educational goals and dreams.

Finally, I would like to thank the members of my third family, two educational communities, Penn State University, and the Tyrone Area School District for the guidance and inspiration to pursue the doctoral program. To my advisor, Dr. Richard Hazler, how fortunate I have been to have you guide me, teach me, and to share your extraordinary problem solving skills and determination in helping me complete my dissertation. To my committee members, Dr. JoLynn Carney, your supportive attitude and research savvy taught me the basic thought process in forming research questions and hypotheses, followed by thinking through data analysis processes; Dr. Elizabeth Mellin, your editing skills and writing suggestions took me to another level of writing; and, Dr. James Johnson, thank you for your participation and contributions to this dissertation process. A special thank you to Chris Andrus, doctoral secretary, for all your kindnesses.

Chapter 1

Introduction

Overview

Relational aggression is neither a new concept nor more unique to girls than boys in the study of aggression, bullying, and violence among today's youth (Mullin-Rindler, 2003). Relational aggression is a relatively new term defined as any act that excludes a person from friendship or inclusion in a group (Bjoerkqvist, Lagerspetz, & Kaukianen, 1992). It has been described as a protective strategy learned and nurtured in early childhood, perfected during a lifetime, and often associated more with girls than boys. For girls, it is connected to survival, but it is also an aggressive means for girls to take out fears, anxieties, and anger on each other (Brown & Gilligham, 1992).

Research shows inconsistent patterns in sex differences. Some studies show no difference while others report that girls demonstrate more relational maltreatment than boys (Crick et al., 1999; Crick, Casas, & Nelson, 2002; Young, Boye, & Nelson, 2006).

Research on the linkages among violence, bullying, and aggression is beginning to carefully examine the internal emotional, cognitive, and social factors that contribute to relationally aggressive behavior. Differences between how boys and girls perceive and use relational aggression and the perceived benefits of relationally aggressive behavior for boys versus girls needs to be addressed (Rose & Rudolph, 2006; Young, Boye, & Nelson, 2006).

Prior research has been stimulated by both questions concerning the impact of prevention efforts over time, and the rise of youth violence measured in crime statistics in the United States between 1983 and 1993 (Surgeon General's Report, 2001). At the same

time, the concern for child safety expressed by school officials began to rise, along with the reported incidences of youth violence on public school campuses (Gianetti & Sagarese , 2001).

Youth Violence

Crime statistics began to show a reduction in youth violence later in the 1990s, as reports from focus group meetings resulted in documentation of a shift in violent activity. Reportable criminal offenses such as rape, robbery, and homicide declined, while focus group feedback documented by the Surgeon General's Office (2001) consistently reported higher rates of aggressive behavior among youth. Increased aggressive behavior affected not only the quality of life for children, but also had a detrimental effect on academic performance in schools as reported by child and adolescent psychiatrists who consulted with the schools (Twemlow et al., 2001).

Violence in Schools

School administrators in cities, suburbs, and small towns began to recognize the risk of violence in their schools and communities, but faced the difficult challenge of tackling the issues underlying this problem. Multiple resources were needed within the school to face a multitude of social and behavioral issues (Gianetti & Sagarese, 2001).

Program efforts to reduce violence in the schools included a mixture of drug and alcohol prevention activities, school guidance and counseling activities, psychological and behavioral treatment approaches, and classical prevention tools. Youth violence prevention efforts began to take a new look at the need for research-based, comprehensive programming to prevent and reduce violence among U.S. youth (Olweus

& Limber, 2002). Little research was conducted on the viability of violence prevention and intervention efforts in the schools (Stringham, 1998).

Recommended approaches to addressing the prevention of school violence were offered by the U.S. Department of Public Health (Stringham, 1998), Office of Juvenile Justice (National Institute of Justice, 2000), Office of Mental Health, and U.S. Department of Education (Schwartz, 1999). Youth violence and bullying received particular attention from the Center for Disease Control (2002) and the American Medical Association (AMA Delegates, 2002; Dodge, 2001; Nansel et al., 2001). The National Institute of Mental Health (1998, 1999, 2002), and the Surgeon General (2001) produced extensive research, reports, and studies that indicated that youth violence, particularly bullying, was reaching crisis proportions in the United States, causing bullying to become the target of research efforts to understand the problems related to school safety and violence prevention.

Bullying

One of the first violence prevention efforts appropriate for use in the schools that met rigorous scientific standards was the Bullying Prevention Program designed by Dr. Dan Olweus, and implemented in Norway's schools (1978).

Bullying was defined as cruel behavior that included repeated negative actions, an imbalance of power, and the intent to harm. Four types of bullying were identified: physical aggression, verbal aggression, social alienation, and intimidation (Olweus, 1993). Program effectiveness was evaluated by a 39-item Bully/Victim Questionnaire that assessed general bully/victim problems, feelings and attitudes regarding friends and bullying, reactions of others toward bullying, and general satisfaction with school.

Resulting information, compiled in frequency distributions for girls and boys by grade level and overall population tested, provided information regarding the type, frequency, and places where bullying occurred. Annual replication of the study provided information concerning changes needed in interventions already implemented. Olweus (1993) reported an initial 50% reduction in bullying after the first two years of implementation of the Bergen, Norway program. Foremost among the issues were those related to the physical and verbal aggression of youth, along with the threat to harm.

In 1996, the Olweus Bullying Prevention Program was identified as a national Blueprint Program in the United States. Development of Blueprints to identify programs that could serve as a nucleus for national violence prevention efforts was initiated at the University of Colorado. Blueprint programs were required to demonstrate a strong research design, evidence of significant deterrent effects, multiple site replication, and sustained effects (Olweus & Limber, 2002). Recent review of school-based bullying prevention programs find studies of Olweus outcomes show inconsistent results both within and outside of the United States(Vreeman and Carroll, 2007). Fidelity and difficulty in replicating the program are cited as contributing to the lack of success of the program in other settings as well as concerns over the effectiveness of these programs with younger children.

Another Blueprint Program, Promoting Alternative Thinking Strategies (PATHS), is a curriculum designed to promote emotional competence. Studies compared classrooms receiving the intervention with control groups and included program effects of behavioral change on constructs of peer aggression and conduct problems (Olweus & Limber, 2002). Limitations include the lack of teacher focus and skill in teaching

emotional competency (Greenburg et al., 1998) that affect fidelity and validity of outcome reports.

Along with Blueprint programs, a national listing of promising programs include a playground intervention program to promote positive social interactions among young children, LIFT (Linking the Interests of Families and Teachers), and The Good Behavior Game. Both of these interventions address beliefs and behaviors that promote or reduce aggression and bullying in children (Center for the Study of the Prevention of Violence, 2002–2004).

Aggression

Bullying in schools was viewed for years as the overt physically aggressive behavior of boys. The scientific study of aggression led educators to focus interventions on male overt behavior as a major issue in bullying (Berkowitz, 1993). Further scrutiny of the study of bullying and aggression in schools resulted in a swell of concerns about sex differences, negative behavior, and prediction of social adjustment.

Definition spawned interest in relational aggression and the influence of various factors that demonstrate sex differences in the complex process of bullying (Crick, 1996; Crick, Bigbee, & Howes, 1996; Crick & Grotpeter, 1995; Crick, Grotpeter, & Bigbee, 2002).

Initial Studies of Relational Aggression

Initial studies of bullying behavior in girls suggested that their relational aggression had not been formally distinguished from general aggression. The first method of delineating the differences between overt aggression and relational aggression utilized a Peer Nomination instrument similar in format to measures used in the past to determine

aggression in general (Cox, 2003; Crick, 1996, 1997; Crick, Bigbee, & Howes, 1996; Crick & Dodge, 1996; Crick & Grotpeter, 1995; Crick, Grotpeter & Bigbee, 2002; Crick & Werner, 1998; Grotpeter & Crick, 1996). This tool utilized various scenarios involving aggressive behavior to assess the emotional and various social-information-processing mechanisms related to hostile intent attributions and bullying reactions. The intent was to provide further insight into the interventions needed to reduce this significant form of aggression. Study indicated the need for additional research in the area of sex differences and internal influences on relationally aggressive behavior (Crick, Grotpeter & Bigbee, 2002).

Crick and Grotpeter (1995) found support for the hypothesis that both girls and boys are aggressive, but exhibit different behaviors, in their study of relational aggression, sex, and social-psychological adjustment. This work recommended further study given that relational aggression was found to be significantly associated with social-psychological adjustment problems. Further information and knowledge was needed on the correlates, antecedents, and consequences of relational aggression, as well as the function it serves in peer groups. Similar recommendations were made in Crick's (1996) study of social adjustment and the role of overt and relational aggression and pro-social behavior.

Relational Aggression Research

Studies of relational aggression focused more on the behavior of girls have begun to address multiple issues related to sex differences inherent in this form of aggression. Peer acceptance (Tomada & Schneider, 1997), the expression of emotion (DeAngelis, 2003; Flemming, 2003), self-defense styles (Thomas, 2003), and the desire to feel better

(Simmons, 2002) are areas that have been reviewed and recommended for further study. Their general findings supported some shift in focus to females due to the increase in violent offenses among female youth over the past two decades (Odgers & Moretti, 2002).

Studies of the relational aggression of boys versus girls demonstrate that girls were more at risk for future adjustment difficulties than boys (Crick, 1996), and that relational aggression was more characteristic of girls than boys (Crick & Grotpeter, 1995). Crick, Bigbee, and Howes (1996) concluded that while both boys and girls used relational aggression in response to anger, girls were more subtle about their relational aggression.

In assessing intensity of feelings of distress, Crick, Grotpeter, and Bigbee (2002) found that interpersonal provocations were more distressing for girls than for boys. Adult acceptance of relational aggression as normal behavior fails to recognize relational aggression as a form of maltreatment that is more acute for girls (Young, Boye, & Nelson, 2006).

Girls are likely to be socialized into a preference for indirect rather than direct forms of aggression (Sutton & Smith, 1999). Physical aggression may be viewed as more dangerous. At the same time, boys may prefer a rational-appearing aggression (Bjorkqvist, 2003). Also, girls may find relational aggression more effective, while boys may find physical aggression more consistent with the norms of boy peer groups (Murphy, 2003).

Focusing on physical aggression leaves out 7% of the aggression of boys, but 60% of girls' aggression (Young, Boye & Nelson, 2006). Overall, studies conclude that

various similarities and differences exist in male versus female intent, perception, and response to peer provocation or incidences with no provocation. Sex differences are still largely inconclusive (Bjorqvist, 1994; Underwood, Galen, & Paquette, 2001) since the body of research has not taken the more subtle type of aggression, relational aggression, into consideration and the research needs to be examined with caution (Merrell, Buchanan, & Tran, 2006).

Problem Statement

This study examined relational aggression and the emotional distress levels of relationally aggressive boys and girls. Studies have established the significance of relational aggression and its role in youth aggression (Merrell, Buchanan, & Tran, 2006). Additional information is needed, however, to understand and address the related social and emotional issues (e.g. poor peer relationships, lack of awareness in identifying, expressing, and coping with feelings, difficulty in behavioral self-regulation) that negatively impact students in small, rural schools known to demonstrate the at-risk behaviors of other populations (Welsh & Domitrovich, 1999).

Studies have indicated that relationship problems and worries follow a student to school and can impact performance (Twemlow et al., 2001). Without attention to these problems, the emotional, social, and academic development of many students will continue to be compromised.

Rationale and Significance of the Study

Earlier studies of bullying behavior in schools established that girls may have reported less bullying in empirical studies than boys because their aggression was not clearly defined (Crick, 1995; Crick & Grotpeter, 1996). Later studies indicated

conflicting reports over whether girls exhibit significantly more relational aggression in school (Archer, 2004). This distinctive form of aggression not only creates significant relational difficulties, but also internal difficulties in social and emotional adjustment (Conway, 2004). Once psychometrics were developed and validated that separated overt from relational aggression and pro-social behavior, measurement of emotional distress became possible using scenarios and follow-up questions (Crick, Grotpeter, & Bigbee, 2002).

Relational aggression and the emotional distress it causes need further study to pinpoint the magnitude of this problem for boys and for girls. This study looked at the relationships between relational aggression, peer relationships, and the internal distress of children involved in relational aggression. Results can provide the impetus for the continued study of relational aggression. Finally, research-based input into the development of programs to address the issues of relational aggression should promote the likelihood of appropriate intervention.

Rural versus Urban Study

This study was conducted in a small rural area with a low population of citizens. The potential impact of the study of a small community versus an urban or suburban area could influence the results of the study in significant ways. In a small community close-knit relationships among community members might intensify the emotional reaction to incidences of violence within the community. In an area where everybody is connected, through community resources and the school, heightened distress over physical violence might be prevalent. Second, because neighborhoods are in close proximity to each other, there is little distance between the members of the community prone to violent and

aggressive acts and those who are potential victims. Finally, issues within the community are more easily are brought into the school setting. The can be at the bus stop, on the bus, or in unstructured areas like the cafeteria or playground. Children can be more intimately aware of each other's personal and family issues as well as observant of and affected by each others social and interpersonal behaviors in smaller more rural communities.

Research Questions

1. Are boys identified as more overtly aggressive than girls?

2. Are girls identified as more relationally aggressive than boys?

3. Do girls demonstrate more emotional distress than boys about relational aggression situations?

4. Does the sex of participants influence the relationships between relational aggression, overt aggression, pro-social behavior, and emotional distress?

Variables

Independent Variable

    Sex

    The sex (male or female) of participants is requested on the Peer Nomination Form developed by Dr. Nicki Crick (1995). This study distinguishes between forms of aggression in boys and girls and the strength of that form of aggression for each sex. Previous studies indicated that determining the degree of varied forms of aggression in boys and girls was necessary before further investigating other factors related to relational aggression (Crick & Grotpeter, 1995; Crick, Bigbee, & Howes, 1996; Crick, Grotpeter, & Bigbee, 2002; Crick & Werner, 1998).

Dependent Variables

Relational Aggression

Relational aggression is defined as harming others through purposeful manipulation and damage of their personal relationships. It includes keeping them out of social situations, stopping liking them, ignoring them, excluding them, and not wanting to hang out with them.

A Peer Nomination form is used to distinguish between overt and physical aggression, relational aggression, and pro-social behavior (non-aggressive behavior). This instrument has been used in several studies as an initial measure to distinguish childhood aggression before identifying and studying other issues related to relational aggression (Crick, Bigbee, & Howes, 1996; Crick, Grotpeter, & Bigbee, 2002; Crick & Werner, 1998).

Overt Aggression

Overt aggression is defined as hitting, pushing, or threatening to beat others up, calling others mean names or insulting them. Crick (1995) developed a Peer Nomination form to assess different forms of aggression. Peer Nomination forms were used in previous research to identify aggressive children (Coie & Dodge, 1983). Peer informants were viewed as more reliable than individual teachers or researchers in providing information about relationships.

Pro-Social Behavior

Pro-social behavior includes helping others join a group, doing nice things for others, cheering others up, and being a good leader. This group is commonly used in studies of aggression (Crick, Grotpeter, & Bigbee, 2002) to separately identify groups of

aggressive and non-aggressive children. A Peer Nomination form is used to identify children who exhibit pro-social behavior.

Emotional Distress

Internal emotional distress includes how angry and upset the respondents would feel in various situations. An Intent Attributions and Feelings of Distress measure (Crick, 1995; Crick & Dodge, 1996) is used to assess emotional distress. This measure asks children to read ten hypothetical stories with ambiguous intent of the aggressor. Five stories involve overt aggression and five stories involve relational aggression. Each story is followed by a number of questions that assess whether the event in the story was done on purpose and the children's emotional response to the story (Crick, 1995; Crick & Dodge, 1996; Crick, Grotpeter, & Bigbee, 2002; Nelson & Crick, 1999). Respondents are asked how they would feel if the events in the story really happened to them.

Hypotheses

1. Boys will be identified as more overtly aggressive than girls as measured by the Peer Nomination form (Crick, 1995).

2. Girls will be identified as more relationally aggressive than boys as measured by the Peer Nomination form (Crick, 1995).

3. Girls versus boys will express higher levels of emotional distress measured by the Intent Attributions and Feelings of Distress assessment (Crick, Grotpeter, & Bigbee, 2002), about relationally aggressive situations as compared to situations involving overt aggression.

4. The degree of pro-social identification by peers versus the degree of relationally aggressive identification by peers will be related to sex and emotional distress.

Study Limitations

The proposed study had generalizations limited by the convenience sampling of boys and girls from one school district. Subject characteristics were somewhat the same as those for the general population, being of the same type and population (McMill & Schumann, 2001), but were different in that they were from a rural population. Self-reporting was a potential limitation of this study as self-reports are vulnerable to distortions, causing response bias (Heppner, Kivlighan, & Wampold, 1992).

Since peer nomination is a form of sociometric assessment, additional limitations included age effects regarding interpretation of peer behavior, sex-role stereotyping, and difficulty getting informed consent for a large group of participants (Merrill, Buchanan, & Tran, 2006). Despite these limitations, peer nominations have been found to be successful in assessing relational and overt aggression (Crick, Bigbee, & Howes, 1996).

Chapter 2

Review of the Literature

This chapter explores the literature on bullying and aggression in the schools, how they are defined, and the formal study of the prevalence, indicators, and treatment of bullying and aggression. It then presents the research on relational aggression as a distinctive form of aggression in bullying, and how the research leads to the study of relational aggression that serves as the basis for the proposed study. Finally, it presents more detailed information on the variables in this study.

Bullying and Aggression

Studies of bullying in youth, and recent writing on the hidden aggression of girls, have indicated that relational aggression, a less obvious form of childhood aggression, represents a significant form of aggressive behavior (Crick, 1995; Crick & Rose, 2000; Young et al., 2006). Further, studies, writings, and videos on relational aggression have begun to define the internal processes and damage done both to the victims and the perpetrators of this form of aggression (Merrell et al., 2006; Messick, Michaels, Fey & Waters, 2004; Simmons, 2002). Studies have also concluded the need for solid research on these topics, both the sociological and psychological theories behind current interventions utilized, and the social and emotional dynamics underlying the aggressive behavior of youth (Conway, 2004; Crick, Grotpeter, & Bigbee, 2002; Young et al., 2006).

Bullying Concepts

Bullying is a complex social construct, widespread in schools, neighborhoods, and homes throughout the country and the world. Many forms of bullying span a range of

physical and verbal behaviors that include name calling, hitting, social isolation, intimidation, and public and private humiliation (Olweus, 1993). Bullying behavior cuts across social, economic and racial lines (Olweus, 1999). Its occurrence is dependent upon the bully's characteristics, victim response, the behaviors and attention of responsible adults as well as the tolerance of the institution in which it occurs. Unless addressed early in life, it can extend well into adulthood (Boulton & Smith, 1994; Salmivalli, Lappalainen, & Lagerspetz, 1998; Salmivalli & Voeten, 2004).

Bullying among children typically occurs at school or on the way to and from school (Banks, 2001; Olweus, 1993). Surveys indicate that half of all students in the United States are bullied sometime during their school years and at least one in ten is bullied on a regular basis (American Academy of Child and Adolescent Psychiatry, 2001). In 1999, the U.S. Departments of Education and Justice estimated that almost one million adolescent students reported fear of being attacked or harmed at or near school (AMA Annual Meeting, 2002).

Bullying has been generally overlooked or minimized, in the United States, seen by adults as being part of growing up (Crick et al., 2002). In recent years, however, longitudinal research conducted in countries outside the United States (Archer, 2004; Bjorkqvist, 2003; Forero, McLellan, & Bauman, 1999; Kumpulainen et al., 1998; Tremblay, 2002) indicate that bullying may be a pathological behavior with profound social and emotional health consequences for children. Further definition of the roots of bullying is needed (AMA Annual Meeting, 2002; Dodge et al., 2003; Olweus, 1993).

Bullying Roles

Bullying involves three categories of participants: bully, victim, and bystander. These roles can alternate, however, requiring adult caution about labeling (Spivak & Prothrow, 2001). Bullying is defined as negative behavior characterized by repeated negative action, intent to harm or distress, and an imbalance of power (Nansel et al., 2001; Olweus, 1993). Victims of bullying have been identified in past research as isolated children who are anxious, insecure, or unable to defend themselves (Olweus, 1999). Sometimes victims have been identified as restless, irritable, or prone to get upset easily and may tease or provoke others or fight back when bullied, but end up losing the battle (Gini, 2006). Bystanders have been characterized as those who observe the bullying and either help the victim, join in with the bully, or do nothing at all (Gini, 2006; Olweus, 1999). Gini (2006) defined bullying as a type of peer aggression commonly occurring in school settings. Ojala and Nesdale (2004) reported that in groups of children, in-group members tend to consider bullying more acceptable when it is directed towards an out-group member who represents a potential threat to the in-group.

Coloroso (2003), in her book *The Bully, The Bullied, and the Bystander*, defined seven kinds of bullies: confident, social, fully armored, hyperactive, bullied, bunch of bullies, and gang of bullies. Bullying was characterized by a variety of common traits, among which are the desire to dominate and use other people to get what they want (i.e., attention).

Bullying behaviors include verbal aggression, physical aggression, intimidation, and social isolation (Garrity, Jens, et al., 2000). There seems to be some general consensus in the literature on the definition of bullying and on the behaviors of bullies,

while the impact of bullying on youth remains a topic of some debate (Finklehor, 2005). This has resulted in the need for more formal research on the impetus and internal reactions of victims and bullies (Crick, 1995; Nansel et al., 2001). Rose and Rudolph (2006) reviewed sex differences in several peer relationship processes, including behavioral and social-cognitive styles, stress and coping, and relationship provisions such as feelings of satisfaction and validation.

<div align="center">*Bullying Prevalence Data and Studies*</div>

Prevalence Data

The preponderance of formal research on bullying has taken place in the Scandinavian countries, originating in Norway, but also has been conducted or included populations in Italy, Spain, Finland, Scotland, Great Britain, Australia, Japan, Canada, and, recently, the United States. Nationwide studies in Norway, beginning in 1983, indicated that victim reports of bullying ranged from 3% to 17.5% across grades 2 through 9. Male victims reported the highest rate of bullying in the 2nd grade, and girls in the 9th grade reported the least amount of bullying. Students reporting experiences with bullying vary, with boys in the 8th grade reporting the highest rate of bullying behavior and girls in the 9th grade reporting the least (Olweus, 1999). Little attention has been given to uncovering either sex distinctions or internal factors contributing to the bullying behavior surveyed.

The National Institute of Child Health and Development found, in 2001, that 16% of U.S. school children had reported being bullied by other students. This survey of 15,686 students in grades 6 through 9 were from public, parochial, and other private schools (Nansel et al., 2001). A recent study of varied forms of victimization was

conducted with 2,030 children and youth ages 2 to 17 (Finkelhor et al., 2005). Results indicated considerable continuity for many acts of victimization from younger to older children as well as substantial levels of many kinds of victimization at younger ages. In particular, it confirms the high level of bullying and teasing that elementary school-age children experience (Ross, 2003).

Bullying Studies

The relatively few studies on bullying prevention programs in the United States have shown little effect in reducing overall bullying (Cornell et al., 2006). Bullying has been difficult to assess in part because of the broad category of behaviors that are related to peer conflict. The widely used Olweus Bully/Victim Questionnaire (Olweus, 1999) is a self report measure that has produced results prone to intentional biases and unintentional errors (Cornell et al., 2006). Among them are careless and dishonest responding that could inflate estimates. The use of peer nomination methods (Crick & Grotpeter, 1995; Fox & Boulton, 2003) demonstrate that the use of peer nomination methods may be helpful in identifying individuals needing intervention for bullying and assess effectiveness of programs used to address bullying issues.

Outside the United States, bullying behavior has been studied in many countries and on many continents (Olweus, 1999). Research extends beyond basic concepts and definitions to include data on sex differences and internal factors that lead to aggressive behavior.

The study of bullying in Italy (Baldry, 2004) resulted in several findings. Almost half of a sampling of 660 middle school students reported having been bullied. Boys reported bullying others two to three times more often than girls. Sex differences

emerged for direct bullying (i.e., calling nasty names, physically hurting, taking belongings, and threatening), suggesting that boys are more likely to use overt forms of aggression. Multiple regression analyses revealed that being female is a significant risk factor for all internalizing symptoms (e.g., anxiety and depression).

A study of temperament, aggression, and anger in children (Ortiz & Gandara, 2006) sampled 293 children, 8 to 15 years old in Spain. Findings indicated that temperament did not have great relevance in the prediction of either aggression or anger. Another article summarized and reviewed the main empirical results of research completed in Spain on aggression and psychological constructs (Ramirez & Andreu, 2006). The researchers' findings indicated that correlations existed between overt aggression and anger, but not instrumental aggression, where anger may be controlled to achieve a planned social goal (i.e., exclusion from a group).

In Finland, 1,220 elementary school students in grades 4 through 6 participated in a peer-evaluated measure of bullying behavior (Salmivalli & Voeten, 2004). The measures evaluated connections among attitudes, group norms, and students' behaviors in bullying. Findings indicated that various classroom social contexts and norms have an effect on students' bullying roles and behaviors, particularly for girls.

A Scottish study of children's perceptions of pro-social and bullying behavior (Warden et al., 2003) used popularity measures, self-report ratings, peer nominations, and teacher ratings to assess perceptions of their own and peers' social behavior. Findings indicated that children perceived by peers to behave antisocially were also perceived to be unpopular for both overt bullying and relational bullying. Conversely, children who perceived themselves to be antisocial, were perceived by peers to be popular. This

suggests that different definitions of antisocial behavior may be in operation for self-reports versus peer reports.

Bullying Victimization Studies

Pelligrini et al. (1999) reviewed factors related to victimization in early adolescence. He concluded that the attitude of victims of bullying was different from that of those doing the bullying. Victims reacted negatively to bullying and bullies reacted positively. Emotionality, combined with physical activity in bullying, indicated self-control issues. Having friends and being liked by peers were protective factors against victimization. The nature of friendships was important in inhibiting victimization; this study strengthened the belief in the power of the bystander in preventing and stopping bullying (Olweus, 1993).

Pelligrini and Bartini (2000) further studied the methods of sampling aggression and victimization in school settings. They concluded that such a study does not measure indirect aggression, such as relational aggression, which can be done publicly or privately. Past methods of studying bullying and aggression limited the perspective of the scope and magnitude of antisocial behavior at school.

Finkelhor et al. (2005) examined a wide spectrum of violence that included bullying in a comprehensive national victimization study of children ages 2 to 17. Findings indicated that 27% of 6- to 12-year-olds interviewed reported being victims of various forms of bullying. It was also reported that bullying was significantly more common for children or youth in households with family incomes exceeding $50,000/year. This study showed substantial levels of many kinds of victimization at

younger ages, confirming higher levels of bullying and teasing among elementary-age children (Ross, 2003).

<p style="text-align:center">Aggression</p>

The construct of aggression is generally defined as any act intended to hurt another person (Coie & Dodge, 1998). It is more clearly defined as any behavior directed toward another individual that is carried out with immediate intent to cause harm (Anderson & Bushman, 2002). Harm may take various forms and serve different functions (Young et al., 2006). Physical aggression and externalizing behaviors have historically been the emphasis of study, concern, and intervention (Young et al., 2006).

Forms of aggression studied in recent years demonstrate a lack of consensus regarding current terminology, as the field of research broadens its conceptualization of what constitutes aggression. Some aggression researchers categorize forms of aggression as reactive, proactive, overt, and relational (Griffin & Gross, 2004). While proactive aggression is unprovoked and goal-directed, reactive aggression is an immediate response to a perceived threat (Price & Dodge, 1989). Subtypes of proactive aggression include instrumental aggression to claim an object and bullying, directed toward an individual in order to dominate or intimidate. Others use terms such as indirect aggression (Bjorqvist, 2001), social aggression (Underwood et al., 2001), and relational aggression (Crick & Grotpeter, 1995).

Archer (2001) noted that direct aggression and indirect aggression are options in relational aggression. Direct aggression is more observable. Indirect aggression is less obvious and more difficult to measure. The term relational aggression, unlike indirect

aggression and social aggression, captures neither too broad nor too narrow a perspective of behaviors (Merrell et al., 2006).

Young et al. (2006) pointed out that failing to consider relational aggression limits the ability to identify and address 60% of girls' aggression and 7 % of boys' aggression. This would also mean that a large percentage of victimized children would not be identified as targets (Crick & Nelson, 2002; Hennington, Hughes, Cavell, & Thompson, 1998).

Relational Aggression

Early formal research indicated that both bullies and victims demonstrated poorer pro-social skills than non-bully/victim peers (Kumpulainen et al., 1998; Nansel et al., 2001; Olweus, 1993). Recent books based on interviews with girls indicated that the relational aggression of females demonstrated a higher level of social skills complexity and personal needs (Blanco, 2003; Simmons, 2002). In one of the first observational studies to assess gender differences related to social exclusion (Underwood & Buhrmester, 2007), findings demonstrated that girls were more distressed than boys over social aggression. This study also described behavioral differences between boys and girls in socially aggressive behaviors. Girls were described as being more surreptitious and made more mean faces and gestures than boys. Another study described the moderating role of gender in children's aggression over the course of a year of study (Murry-Close, et al., 2007) and suggested that relational aggression becomes an increasingly common behavior during late elementary school for girls. This study also described a "nearly statistically significant" involvement of girls in relational aggression over boys.

Conversely, one study, conducted by Hawley et al. (2008), utilized both self reports and peer reports, and concluded that relational aggression is not solely the strategy of girls, but that boys demonstrated a wide range of behaviors and skills including high levels of relational aggression in order to exert social dominance over peers. The meta-analysis of sex differences in different forms of aggression (Archer 2004) found that differences are moderated by the methods used to measure aggression. Results of studies of preschoolers and adolescents (Pelligrini et al., 2007; Pelligrini & Long, 2003) support the concept that some children use aggression strategically, whether they are boys or girls (Pellegrini & Roseth, 2006).

Early research on the bullying behavior of females versus males did not separate or define different forms of aggression to elicit a response that would account for sex differences. Gaps in understanding of bullying behaviors and sex-related issues of youth began to be addressed when the definition of aggression in bullying became more specified and included the term relational aggression (Crick, 1995).

Crick and Grotpeter (1995) initiated research on the prevalence of relational aggression in the United States. Their initial study concluded that relational aggression was a distinctive form of child aggression and more prevalent in girls than in boys, related to risk for serious adjustment difficulties. They also reviewed forms of aggression previously studied that indicated that overt aggression was more salient for boys than girls. This resulted in early surveys that focused on overt aggression and reported that boys were more aggressive than girls (Crick and Grotpeter, 1995). Sex issues in bullying behaviors were postulated much earlier by Feshbach (1969), but little research was actually initiated to understand the differences.

One measure of relational aggression (Crick & Grotpeter, 1995) emphasized assessing sex differences in relational aggression, the degree to which relational aggression is distinct from overt aggression, and the relationship of relational aggression to social-psychological maladjustment in girls. The underlying theory was that relational aggression would be related to, but distinctly different from, overt aggression. Measures used with 450 3rd- through 6th-grade students included a peer nomination scale to assess relational aggression and overt aggression, the type of form used extensively in the past to identify aggressive children (Crick & Grotpeter, 1995). A series of self-report social-psychological indices assessed loneliness, social anxiety, depression, and peer relations (Crick & Grotpeter, 1995).

Crick, et al. (1996) expanded earlier studies on sex differences in children's normative beliefs about aggression in two studies of anger and intent to harm. In the first study, 459, 9- to 12-year-olds from four elementary schools in a medium-sized Midwestern town were asked open-ended questions about their beliefs concerning whether aggressive behaviors are associated with anger. The second study utilized Crick and Grotpeter's 1995 peer nomination instrument with 162 9- to 11-year-olds, from two elementary schools in a medium-sized Midwestern town. It assessed children's perceptions of relationally manipulative behavior as involving harmful intent. Sixty students were interviewed using open-ended questions to assess normative beliefs regarding behaviors that were intended to be harmful.

Results of both studies indicated that children viewed relationally manipulative behaviors as aggressive. These studies also provided evidence that relational aggression was salient to both boys and girls. It was further found that boys and girls agreed about

the norms for aggression in boys (i.e., overt physical aggression and verbal insults), but did not agree on the norms for peer aggression among girls. Possible explanations for this included the less visible aggression of girls and a potentially more egocentric, biased perspective of boys. Since many of the children viewed relational aggression as hurtful and damaging, the authors concluded that further research was necessary to assess the impact of relational aggression on all involved.

In conjunction with studies that identified the significance of relational aggression as a distinct form of aggression, Crick and Werner (1998) cited studies of the significance of social information processing to the study of aggressive behavior. Consistent research showed that aggressive children not only processed social cues in ways that contributed to misinterpreting social cues in a hostile manner, thus generating an aggressive response, but also believe that aggression would result in positive outcomes (Crick & Dodge, 1996). The tendency of these studies, however, was to focus on overt aggression rather than relational aggression. The difference between these two forms of aggression is that relational aggression, unlike overt aggression, harms through manipulation of peer relationships (Crick & Grotpeter, 1995).

The Crick and Werner study (1998) included 1,166 3rd through 6th graders from 12 elementary schools in central Illinois. Measures used included a peer nomination form to identify types of aggressive children and non-aggressive children, and a measure designed to assess social information processing at the response decision step using a series of hypothetical conflict situations. Results of these studies indicated that boys evaluated overt aggression more positively, while girls evaluated relational aggression more positively. Further, significant support for the important role of context in

understanding the social information processing factors that may contribute to children's use of aggression indicated the need for further study of social-cognitive biases of some groups of aggressive children. Finally, this study stressed the likely role of emotion in all social-information processing steps (Crick & Dodge, 1994).

Crick, Grotpeter and Bigbee (2002) evaluated the intent attributions and feelings of emotional distress of relationally and physically aggressive children in response to instrumental and relational provocation contexts. Social information processing models concluded that hostile attributional biases increase the probability that a child will react aggressively as a defense against perceived threat. Emotional distress may also arise in response to a provoking social situation and significantly contribute to an aggressive, retaliatory response pattern (Crick & Dodge, 1994). Since only one prior study of the social cue interpretation of relationally aggressive children existed (Crick, 1995), further research was conducted to look at hostile attributional biases and emotional distress in response to relational provocations.

Two studies were utilized to assess both physical and relational aggression utilizing a peer-nomination instrument developed in prior research (Crick, 1997). Three subscales measured physical aggression, relational aggression, and pro-social behavior. Scores identified groups of aggressive and non-aggressive children. Sets of hypothetical-situations, developed in prior research, assessed both intent attributions and level of anger (Crick, 1995). Situations described both instrumental and relational provocations and children responded to two intent attributional questions and an anger level rating question for each situation.

Findings indicated that hostile attributional biases of relationally aggressive children were unique and not merely associated with overall aggression. Further, relational aggression may be more strongly associated with provocations involving a relational slight. For relationally aggressive children, emotional reactions involve negative feelings rather than anger as a precursor to an aggressive response. Age, sex effects, and attention to the context of provocations were recommended for future study.

Two concurrent studies of 4th-, 5th-, and 6th-grade girls conducted by Crain, Finch, and Foster (2005) looked at the relevance of social information processing in understanding the relational aggression in girls. Findings determined no relationship, disputing the results of previous studies linking relational aggression with cognitive processes (Crick, 1995; Crick et al., 2002; Crick & Werner, 1998) and overt aggression to cognitive processes (Crick & Dodge, 1994; Crick et al., 2002). Further, contrary to previous studies that found relational and overt aggression to be distinct constructs, the Crain, Finch, and Foster (2005) study found overt and relational aggression to be so highly correlated that they could not be statistically separated.

The majority of studies of relational aggression have been conducted within urban and suburban communities. In these studies, the term gender was utilized instead of sex to determine differences between boys and girls. Sex differences is a more accurate term to distinguish boys and girls on the basis of their biological origin. The use of the term gender can be confusing, and not accurately represent the construct of sex since gender differences can bring up a variety of differences between boys and girls that are not ordinarily defined or studied.

Overt Aggression

Overt aggression is defined as an act that is primarily intended to harm another individual (Ramirez & Andreu, 2005). In current literature, overt aggression can be physical or verbal (Rose, Swenson, & Waller, 2004). Overt aggression, also called hostile aggression, is associated with the willingness to express anger and confront another without planning. It also implies a certain social ease with confrontation(Conner, Melloni, and Harrison, 1998; Griffin & Gross, 2004; Ramirez & Andreu, 2005).On the other hand, overt aggression may also be associated with a lack of assertiveness or appropriate expression of anger and difficulty in dealing with conflict (Archer, 2004). Engaging in overt aggression may involve the inability to inhibit action.

In the study of relational aggression, Crick and Grotpeter (1995) initiated a study to delineate overt aggression from relational aggression and assess whether relational aggression is associated with social-psychological maladjustment. Findings indicated that relational aggression is a related but distinct and independent construct from overt aggression. Also, relational aggression was found to be significantly related to social maladjustment (i.e., reports of peer rejection and poor peer acceptance), and psychological maladjustment (i.e. reported depression, loneliness, and social isolation).

Pro-social Behavior

Pro-social behavior, according to Darwin (1859), is, in its purest sense, altruistic action with no other motive than to help another human. Pro-social behaviors are an aspect of social competence defined as the ability and willingness to help (Henricsson & Rydell, 2004).

In the study of relational aggression, Crick and Grotpeter (1995) relied on concepts of pro-social behavior in creating their Peer Nomination form to delineate students who exhibited a variety of positive behaviors. The positive behaviors include good leader, do nice things, helps others join, and cheers up others.

A good leader is defined as someone kids look up to and try to be like. Do nice things involves children who say or do nice things for classmates. Helps others join includes helping others make friends or join a group. Cheers others up refers to classmates who are upset or sad about something. The pro-social person tries to make others feel happy again (Crick, Bigbee & Howes, 1996; Crick & Grotpeter, 1995).

Emotional Distress

In one of the few studies to explore the emotional features of relationally aggressive children (Crick, 1995), heightened anger and distress were reported by girls in both instrumental (i.e,. the breaking of a child's toy) and relational (i.e., social exclusion) provocations (Conway, 2004). The data suggest that relatively high levels of distress may be felt by relationally aggressive children and that relational conflict situations may lead children to engage in relationally aggressive behavior as a strategy to regulate their emotions.

Social information processing models view emotions as an integral part of children's processing of social cues. Researchers (e.g., Crick & Dodge, 1994) proposed that distressful feelings may significantly influence children's perceptions of social situations.

The study of the relationship of emotionality to aggression (Schultz, Izard, & Bear, 2004) found that the relationship between emotional processing and aggression was

slightly different for boys and girls. Results indicated that emotion processing deficits correlated with aggression both for boys and girls, but the strength of this association was stronger for girls. Results also suggest that some children have a bias toward perceiving anger in a global manner.

Musher-Eizenman, et al. (2004) examined pathways linking environmental and emotional regulation factors in childhood aggression and found that retaliation approval beliefs were strong for girls, suggesting that emotional response to aggressive provocation may be a strong factor. Regarding the role of emotional regulation in aggression, Lemerise and Arsenio (2000) proposed that children prone to strong emotional experience might feel overwhelmed during a social conflict and choose aggression over any alternative response.

Summary of Literature Qualities

Most of the literature cited in this chapter shares studies or compilations of studies of aggression. Populations studied range from 134 to 15,686, with the majority of studies surveying a population of fewer than 1,000 children. Most studies are done in suburban or metropolitan areas, with one study done with a rural population. About half of the studies used peer nomination forms, peer reporting, and self-reports, while a few studies used vignettes or teacher rating forms. One study used phone interviews. Finally, the literature used gender in describing sex differences rather than sex. In this study, sex is used because the differences studied deal with biological differences and do not include differences in gender identification.

Perhaps the most critical reviewers of research cited in the literature were Finkelhor, et al. (2005), who discussed the value and importance of conducting

aggression studies using multiple measures, and Archer (2004), who criticized measures, definition, and the focus of many studies. This suggests the need for agreement among researchers on the basic concepts, definitions, and procedures to follow in studying aggression before the research can be interpreted with confidence.

No studies before 1995 delineated relational aggression as a separate form of aggression. Few studies since 1995 have studied emotional distress in relation to sex and types of aggression. Of the few studies found to examine sex specific forms of aggression, and emotions, populations were metropolitan, with few references to further demographic or ethnic populations.

Real strengths of the literature include discussion of the complexity in defining forms of bullying and aggression across nations. There is a need for further research on sex, aggression and not only emotional distress, but specific emotional responses to aggressive situations. Further, the influence of peers, families, and societal expectations and sanctions on children who exhibit aggressive tendencies and emotional distress needs to be studied in comparison with children who do not exhibit these tendencies. Intent attributions, social information processing, and long-term adjustment are defined in the literature as areas for further examination, and were clearly critical to the study of aggressive behavior.

Significant research has begun with young children, and the literature is beginning to address the issues of these children with particular emphasis on bullying and aggression. Multinational efforts to develop viable prevention and treatment approaches to address these behaviors hold promise in understanding this complex issue. To further

the research on aggression, chapter 3 contains a description of the present study of forms

of aggression, sex, and emotional distress.

Chapter 3

Methodology

This chapter contains a description of the participants, measures, and procedures used in this study. Research design, hypotheses, and analysis are discussed.

Participants

A total of 125 4th-grade children from a public school in a small, rural school district in central Pennsylvania were offered to participate in this study. The invited sample included 52 girls and 73 boys. Of the 125 children, all were white. The grade level had 48% of the children classified as economically disadvantaged according to the Pennsylvania Department of Education Free and Reduced Lunch Program. The final sample of participants who participated in the study was 91, 40 girls and 51 boys, a 75% response rate. This particular population was selected because this type of study has not been done with rural elementary students.

Measures

Two measures were used to assess aggression, pro-social behavior, and emotional distress. A peer nomination instrument, the *Children's Social Behavior Scale-Peer Report (CSBS)* (Crick, Bigbee & Howes, 1996; Crick & Grotpeter, 1995) was used to assess social behavior. Peer nomination scales provide participants with a list of classmates' names and ask them to nominate by writing in the names of peers who fit various descriptions (Griffin & Gross, 2004).

The *Intent Attributions and Feelings of Distress (IAFD)* assessment of social information processing was used to assess level of emotional distress (Crick, 1995; Crick

& Dodge, 1996; Crick, Grotpeter, & Bigbee, 2002; Nelson & Crick, 1999). Feelings of emotional distress that may arise in response to a provoking social situation have been hypothesized to play an integral role in children's interpretation of social cues (Crick & Dodge, 1994).

Peer Nomination Instrument

The CSBS (Appendix A) (Crick, Bigbee & Howes, 1996; Crick & Grotpeter, 1995) contains 15 items providing information on the subscales of social behavior: Relational Aggression, Overt Aggression, and Pro-social Behavior. Participants are asked to select up to three classmates from a list of peers who most closely match with the listed items.

Relational Aggression items are Keep Out, Ignores Others, Stop Liking, and Keep People. The Keep Out Item asks children to find three people who, when they are mad at a person, get even by keeping that person from being in their group of friends. Examples of situations are given for clarification. Ignores Others asks for three people who, when they are mad at a person, ignore the person or stop talking to them. The Stop Liking item refers to three people who let their friends know they will stop liking them unless the friends do what they want them to. The Keep People item asks for three people who try to exclude or keep certain people from being in their group when doing things together, and includes examples.

Overt Aggression items include Hit Others, Insults, Push Others, Will Beat Up, Mean Names. Hit Others asks for three classmates who hit, kick, or punch others at school.

The Insults item asks for three people who say mean things to other classmates or put them down. Push Others asks for three kids who push and shove others around. Will Beat Up refers to those who tell others they will beat them up unless the kids do what they say. Mean Names asks for three classmates who call other classmates mean names.

Pro-social behavior questions are Good Leader, Do Nice Things, Helps Others Join, and Cheer Others Up. Good Leader refers to students whom others look up to and try to be like. The Do Nice Things item is about people who say or do nice things for classmates. Help Others Join are kids who help others join or make friends. Cheer Others Up includes people who try to cheer up other classmates who are upset or sad about something and try to make them feel happy again.

Two additional items ask participants whom they hang out with the most and the least and to list them by number from the class roster. These two positive and negative sociometric questions are not part of the study, but can yield scores about peer rejection and peer acceptance if summed up and standardized within each classroom. Past studies have used these scores to determine if relational aggression was positively related to peer rejection, and pro-social behavior was positively related to peer acceptance (Crick, 1996). In this study, these questions only serve as a starting point in completion of the Peer Nomination process.

Participants who cannot think of three peers to nominate for a certain section are quietly urged to think very hard of three classmates to nominate for that section. If they still cannot think of whom to nominate, the adult presenting the measure helps them to go through the list of names. If they still cannot think of a response, they are given individual permission to write "no" in the blanks in a way so children don't just do this

and not give any response. If children want to nominate more than three peers for an item they are individually told to write the three most applicable people who do what is in the item the most and then can put additional names in the blanks off to the right of the margins.

Administration of this measure uses a class list written alphabetically by first name. Each student is assigned a random identification number that is attached to question answers. Participants are instructed that an identification number may not be used more than once for any one question, but can be used for different questions. Finally, participants are told not to use their own number for any of the questions.

Scoring

Manual scoring is utilized with this measure. Identification numbers are listed beside each name on a class roster. Participants write the matching identification numbers they select in the blank spaces for each item on the CSBS, for a total of three responses per item. The identification numbers that students write in is used in the hand scoring. The number of nominations children receive for each item is summed up and then standardized for each classroom. The standardized scores for the three subscales are summed up to create scores for overt aggression, relational aggression, and pro-social behavior.

In this study, weighted scores (opportunity index scores) were calculated for each item in each subscale for each participant. The scores were calculated by dividing each item score by the number of students in that class, then adding the resulting scores for each subscale item and dividing it by the number of items in the subscale. The resulting weighted scores were then used in completing the statistical analyses.

Reliability and Validity

Reliability information published by the Violence Institute of New Jersey (2002) indicates the range of Test-Retest Value to be 0.82 to 0.90. The range of internal consistency was 0.83 to 0.94. This instrument was used with 3rd through 6th grade participants (Crick, 1995; Crick et al., 2002).

Werner and Crick (2004) reported that both overt and relational aggression subscales have been shown to be highly reliable. Past research showed Cronbach's alphas ranging from .82 to .89 for the relational aggression subscale. The overt aggression subscale showed a .94–.97 range, and the pro-social behavior subscale showed an alpha of .93 (Crick, 1996). Consistent with prior research of peer acceptance (Crick, 1996; Crick & Grotpeter, 1995), the "kids you like to hang out with the most" item was measured in the Werner and Crick study (2004) but not analyzed. The negative peer nominations for "kids liked to play with the least" were analyzed and found to be correlated -.82 with scores for social preference (Coie, Dodge, & Coppotelli, 1982).

Crick and Werner (2004), however, cited an earlier study (Crick et al., 1999) that demonstrated evidence for construct validity, consistently confirming the existence of two distinct factors for relational and overt aggression. Internal consistency of both aggression subscales has been shown to exceed .80 in samples of various ages (Crick et al., 1999). High test-retest reliability was reported for a middle-childhood sample over a four-week interval. For boys, $r = .86$ for relational aggression and $r = .93$ for physical aggression. For girls, $r = .80$ for relational aggression and $r = .81$ for overt aggression (Crick, 1996; Rys & Bear, 1997). Factor analyses consistently yielded separate factors for relational versus overt aggression.

Use by Others

Peer nomination measures are widely used in the study of aggression (Archer, 2004; Conway, 2004; Crick, 1997; Crick, Grotpeter, & Bigbee, 2002; Merrell, 2003; Merrell, Buchanan & Tran, 2006). The CSBS developed by Crick (1995) assesses overt aggression, relational aggression, and pro-social behavior. Children's responses to this measure have shown internal consistency in several past studies (Crick & Grotpeter, 1995; Grotpeter & Crick, 1996; Rys & Bear, 1997; Tomada & Schneider, 1997). Computation of Cronbach's alphas showed internal consistency for samples in two concurrent studies conducted by Crick, Grotpeter, and Bigbee (2002). Alphas in the first study were .95 for physical aggression and .87 for relational aggression. The second study resulted in alphas of .96 for physical aggression and .86 for relational aggression.

Emotional Distress Instrument

The IAFD instrument (Appendix B) was developed in 1987 (Fitzgerald & Asher) and later adapted in studies by Crick (1995), Crick and Dodge (1996), Crick, Grotpeter, and Bigbee (2002), and Nelson and Crick (1999). The instrument asks participants to read ten hypothetical stories. Five stories are Overt Peer Conflicts and five stories are Relational Peer Conflicts. The intent of the aggressor in the ten stories is ambiguous so that the participant can choose the intent based on their perspective of the situation.

Participants are asked to read the stories and pretend that the things happening in each story are happening to them. Then they are instructed to put a circle around their answer for each question that follows the story.

Following each story, three questions are asked. The first two questions for each story assess intent—whether the event in the story was done on purpose. Participants

decide from the choices of responses the intent of the aggressor. These first two questions lead to the study question, but are not a part of the study. The third question asks the child's emotional response to the story, and responses are used to assess the variable in this study—emotional distress.

Overt Aggression stories include the Radio Story, the Milk Story, the Shoes Story, the Paint Story, and the Race Story (see Appendix B). In each story, participants are asked to imagine that an incident involving one or more other children occurred that included a physical or verbal behavior. The stories are written in such a way that the participant must decide the intent of the behavior from their own perspective. Participants are then asked three questions. The first question asks why the incident occurred. Choices for the Radio Story, for example, are that the radio wasn't made well, it was an accident, the kid was mad at the participant, and the kid was jealous of the participant.

The second question asks if the participants think that the kid in the story was trying to be mean or not trying to be mean. The third question asks how upset or mad the participants would be if the things in the story really happened to them. The choices are not upset or mad at all, a little upset or mad, and very upset or mad.

Relational Aggression stories include the Playground Story, the Hallway Story, the Party Story, the Lunch Story, and the Walk Story. Relational Aggression stories and questions alternate with Instrumental Aggression stories and questions in the assessment.

In the relational aggression stories, participants are asked to imagine that they are in a situation that might involve a perceived slight or exclusion. The first two questions ask about why the event occurred and if it was done to be deliberately mean. Question

three asks how upset or mad the participant would be if the things in the story really happened to them.

Scoring

The IAFD is hand-scored and has a question about feelings of distress for each of the ten stories. Each emotional distress question has three possible responses. Response choices range from 1 (not upset or mad at all) to 3 (very upset or mad) for each. Children's responses to each question are summed across the ten stories for each set of relational and overt provocations. Scores could range, then, from 5–15 for each set of five relational and five overt aggression stories.

Reliability

Study of emotional distress by Crick (1995) resulted in Cronbach's alpha computation of .74 for upset feelings for relational provocation situations and .72 for upset feelings for overt aggression provocations.

Computation of Cronbach's alpha has demonstrated that the scales have significant reliability for both relational and overt provocation stories, ranging from .68 to .74 (Crick, Grotpeter, & Bigbee, 2002).

Procedures

Classroom bullying prevention lessons in September and October teach students basic bullying prevention concepts and prepare them for weekly class meetings with teachers throughout the year. At this time, students were introduced to the upcoming assessment sessions. The importance of peer input into the study of aggression and bullying was explained. Students were informed that parental permission to participate in the study requires parent signature on a formal consent form (Appendix C). Permission

forms were read to the students and distributed by research assistants prior to the onset of the administration of the measures, including student consent forms (Appendix D).

Individual rewards for turned-in signed permission slips were $1.00 per returned signed parental permission form. The whole-class reward was a pizza party. Classroom rewards were discussed by the teacher and students ahead of time and based on the amount of money collected in each classroom for returned signed parental consents.

When permission forms were sent home, parents were given the opportunity to review the assessments with the researcher by appointment before signing the consent form during the week following the sending of the slips. Returned slips were checked with class rosters to determine the response rate. A reminder and a new permission slip were sent home with remaining students. Students without parent permission to participate in the study were given a manila envelope with a packet of activities to work on during the administration of the surveys.

On the day of the assessment, the peer nomination instrument was completed by participants in their classrooms during a 60-minute group assessment session. At this time, each participant was given a manila envelope with a blank Peer Nomination Form and a coded class roster. They were instructed on how to use the response scale prior to administration of the instrument. Assistance was given to answer any questions. Individual assistance was given discreetly if a participant has difficulty responding to an item. The peer nomination measure was administered in all classrooms on the same day. Schedules for administration were set up at the teachers' convenience, considering their daily schedules. Instruments were distributed and collected individually by the classroom

administrator, and the use of manila envelopes ensured confidentiality of participant responses.

The IAFD instrument was administered the same day in a second one-hour session in each classroom following standard procedures for test administration. The ten hypothetical stories and response choices were read by the students. Children were asked to read each story carefully and circle their response for each question on the packet provided. The first two questions assessed intent attributions, the likely reason for the provocation, and the intention to be mean or not to be mean. The third question assessed each participant's feelings of distress if they were actually involved in the situation. Students were asked to rate how mad or upset they would be if the situation really happened to them.

Research Design

This study was a non-experimental cohort study using a convenience sampling of participants. Aggression research supports the use of peer nomination instruments (Archer, 2004; Merrell, 2003; Merrell, Buchanan, & Tran, 2006) and surveys of intent attribution and emotional distress to gather data for this study (Conway, 2004). Research already conducted with these relational aggression and emotional distress instruments has shown high reliability and validity (Crick, Grotpeter, & Bigbee, 2002, Merrell, 2001, 2006).

The design of this study generated statistics utilized to compare subscales delineated in the hypotheses. The independent variable, either male or female, was correlated with the dependent variables.

Demographic information on the participants included: sex, ethnic background, geographic area of residence, and general economic status of the family.

Analysis

Research Questions

Research Question 1

Are boys identified as more overtly aggressive than girls?

Hypothesis 1. Boys will be identified as more overtly aggressive than girls as measured by the Peer Nomination form (Crick, 1995).

Variables Examined. The independent variable, boys or girls, was statistically compared to the dependent variable, overt aggression, reported in the Peer Nomination measure.

Statistical Analysis. To compare whether or not boys were identified as being more overtly aggressive than girls, *t*-tests were used.

Research Question 2

Are girls identified as more relationally aggressive than boys?

Hypothesis 2. Girls will be identified as more relationally aggressive than boys as measured by the Peer Nomination form (Crick, 1995).

Variables Examined. The independent variable, boys or girls, was statistically compared with relational aggression, another dependent variable.

Statistical Analysis. To determine whether or not girls were identified as more relationally aggressive than boys *t*-tests were used.

Research Question 3

Do girls demonstrate more emotional distress than boys about relational aggression situations?

Hypothesis 3. Girls versus boys will express higher levels of emotional distress about relationally aggressive situations as compared to situations involving overt aggression measured by the Intent Attributions and Feelings of Distress assessment (Crick et al., 2002).

Variables Examined. The independent variable, girls or boys, was entered into analysis with three dependent variables: relational aggression, overt aggression, and emotional distress.

Statistical Analysis. A one-way ANOVA and Tukey comparisons determined whether or not girls participating in the study expressed higher levels of emotional distress over relationally aggressive situations. The data analysis also revealed levels of emotional distress over situations involving overt aggression and compared those levels to emotional distress levels over relationally aggressive situations for girls versus boys.

Research Question 4

Does the sex of participants influence the relationships between relational aggression, overt aggression, pro-social behavior, and emotional distress?

Hypothesis 4. The degree of pro-social identification by peers versus the degree of overtly or relationally aggressive identification by peers will be related to sex and emotional distress as measured by the Intent Attributions and Feelings of Distress assessment (Crick et al., 2002).

Variables Examined. Pro-social boys or girls, relationally aggressive boys or girls, and overtly aggressive boys or girls, as determined by responses on the Peer Nomination Form (Crick, 1995), were entered into analysis with emotional distress as determined by responses on the Intent Attributions and Feelings of Distress Form (Crick et al., 2002).

Statistical Analysis. These variables were entered into analysis and compared using analysis of variance and Tukey comparisons to determine whether or not pro-social boys and girls were less emotionally distressed by relationally aggressive situations and overtly aggressive situations.

<p align="center">*Summary*</p>

This study was designed to identify whether or not relational or overt aggression and emotional distress were more common for boys or for girls. It was also designed to compare and determine relationships among sex, overt and relational aggression, pro-social behavior and emotional distress. Instruments with established reliability and validity were distributed and administered to a cohort convenience sampling of 4th-grade students in a small rural school in Central Pennsylvania. Two one-hour classroom sessions followed standard test administration procedures. Confidentiality was stressed to encourage true student response to the items on each measure. Parental consent was obtained in writing for each student, and a high response rate was encouraged through the use of incentives.

SPSS 15 and MINITAB 14.1 were used to test four hypotheses reflected in the research questions.

Chapter 4

Results

The purpose of this study was to examine forms of aggression and non-aggression in relation to sex and emotional distress. A total of 91 participants completed a Peer Nomination form and 88 participants completed the Intent Attributions and Feelings of Distress form. This chapter reports the characteristics of the participants in the study and the results from the hypotheses that are the basis of this study.

Demographic/Participant Characteristics

Girls accounted for 44% (*N*=40) of the participants completing the Peer Nomination form. Five classrooms on the 4th-grade level completed the survey. The first classroom that completed the survey consisted of 22 subjects—11 boys and 11 girls. In the second classroom of 22 subjects, 12 boys and 10 girls completed the survey. Fifteen subjects, 10 boys and 5 girls, completed the survey in the third classroom. In the fourth classroom, 18 subjects, 9 boys and 9 girls, completed the survey. The fifth classroom that completed the survey consisted of 14 students—9 boys and 5 girls.

Scores showing the mean and standard deviation for each of the classrooms can be found in Appendix E. These scores are broken down by subscales of aggressive behavior and by story types and resulting emotional distress.

Measures of Central Tendency

Three social behavior subscales of the peer nomination instrument include relational aggression, overt aggression, and pro-social behavior. Individuals could

achieve a score on this scale from 0, to the total number of nominations, which varied depending on the class size and the total number of items in each subscale. A weighted score was then used to account for uneven class sizes and the varied number of subscale items.

Mean scores for relational aggression were low for both girls and boys compared to the potential score of four subscale items times the number of students in the class. The relational aggression subscale had a mean of .069, median of .04, and standard deviation of .091 for girls, representing 5 to 7 nominations depending on the class size. Scores ranged from 0 to .49 for girls, with the highest number of nominations being 43, and the next highest number of nominations being 14 to 16 depending on class size. All but 9 girls received nominations. The mean for boys was .0833 with a median of .06 and a standard deviation of .084, representing about 7 to 8 nominations depending on class size. Scores ranged from 0 to .31 for boys. The highest number of nominations for boys was 22.

Mean scores for overt aggression nominations were low for girls give the potential of 5 subscale items times the number of students in the class and 2 to 3 times higher for boys than girls depending on the individual mean score. The overt aggression subscale had a mean of .044 (3 to 5 nominations) for girls and .11 (11 to 13 nominations)for boys. The median for girls was .01 and the median for boys was .06. Scores ranged from 0 to .45 (49 nominations) for girls and from 0 to .51 (62 nominations) for boys. The standard deviation was .081 for girls and .128 for boys.

Mean scores for pro-social behavior were significantly higher for girls in comparison to the boys and lower for boys in comparison to the girls scores and the

potential score of 4 subscale items times the number of students in the class. The pro-social subscale had a mean of .157 (13 to 15 nominations) for girls and a mean of .068 (3 to 5 nominations) for boys. The median for girls was .14 and the median for boys was .06. Scores ranged from 0 to .53 (32 nominations) for girls and from 0 to .18 (16 nominations) for boys. The standard deviation was .116 for girls and .046 for boys.

The IAFD instrument measures two subscales, Overt Peer Conflicts and Relational Peer Conflicts. The instrument then measures level of emotional distress for each subscale story. Scores can range from 5 to 15 for each participant per subscale.

Both boys and girls scored high for emotional distress on the overt aggression stories subscale. Overt Peer Conflict stories resulted in a mean distress score of 12.26 for girls and 12.98 for boys. The range for girls was 7 to 15 and 5 to 15 for boys.

Boys and girls scored high in emotional distress on the relational aggression stories. Relational Peer Conflict stories resulted in girls having a mean distress score of 10.56 and a mean distress score of 11.12 for boys. The range for girls was 6 to 15 and was 5 to 15 for boys. The standard deviation was 2.17 for the girls and the standard deviation for the boys was 2.28.

Hypotheses

Four hypotheses were formulated to answer the major research questions in this study. The analysis and results are as follows.

Hypothesis 1

Boys will be identified as more overtly aggressive than girls as measured by the Peer Nomination form.

The independent variable, boys or girls, was compared to the dependent variable, overt aggression, reported in the peer nomination measure. Table 4.1 shows that the *t*-tests conducted found that boys were significantly more overtly aggressive than girls (*t*=2.878, *p*=.005).

Table 4.1
Overt Aggression Boys versus Girls t-test:

Independent Samples Test

							95% Confidence Interval of the Difference	
					Mean	Std. Error		
		t	df	Sig. (2-tailed)	Difference	Difference	Lower	Upper
OvertAggScor	Equal variances assumed	2.878	89	.005	.06651	.02311	.02059	.11243

Hypothesis 2

Girls will be identified as more relationally aggressive than boys as measured by the Peer Nomination form.

The independent variable, boys or girls, was compared to the dependent variable, relational aggression, reported in the peer nomination measure. Table 4.2 demonstrates that the *t*-tests conducted revealed no significant difference between boys and girls in reported relational aggression (*t*=.806, *p*=.423).

Table 4.2
Relational Aggression Boys versus Girls t-test:

Independent Samples Test

		t-test for Equality of Means						
							95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
RelaAggScore	Equal variances assumed	.806	89	.423	.01428	.01773	-.02094	.04951

Hypothesis 3

Girls versus boys will express higher levels of emotional distress about relationally aggressive situations as compared to situations involving overt aggression measured by the Intent Attributions and Feelings of Distress survey.

The independent variable, girls or boys, was correlated with all dependent variables, relational aggression, overt aggression, pro-social behavior and emotional distress. A one-way ANOVA was conducted using twelve groups by sex, subscale of social behavior, and story type. The one way ANOVA, with an F = 3.74 and a *p* = .000 showed that at least one of the 12 groups showed significance. Since a one-way ANOVA does not tell which group or groups are different, a Tukey comparison was then conducted to determine the source of the significance. It was found that there was no significance among the variables in Hypothesis 3. Table 4.3 shows the comparisons for all groups. The 12 variable combinations are listed by abbreviations for sex (G or B),

peer nomination subscale (PRosocial, OVert or Relational), and   story type (OVert or

RElational).

Table 4.3
Tukey Comparisons for All Variables

```
                                 Individual 95% CIs For Mean Based on
                                 Pooled StDev
Variable    N    Mean  StDev   -+---------+---------+---------+--------
GPROV      18  11.500  1.724              (------*-----)
GPRRE      17   9.824  2.099   (-----*------)
GOVOV      11  13.182  2.228                     (-------*-------)
GOVRE      13  11.538  2.106          (-------*-------)
GREOV      13  12.692  1.974                (-------*------)
GRERE      15  11.600  1.993           (------*------)
BPROV      23  12.696  1.845                   (-----*----)
BPRRE      20  10.900  1.889        (------*-----)
BOVOV      19  12.947  2.677                   (-----*------)
BOVRE      16  12.188  1.905            (------*------)
BREOV      18  13.000  2.765                   (------*-----)
BRERE      16  11.813  1.834           (------*------)
                                -+---------+---------+---------+--------
                                9.0      10.5      12.0      13.5
```

Hypothesis 4

The degree of pro-social identification by peers versus the degree of overtly or

relationally aggressive identification by peers will be related to sex and emotional

distress.

Pro-social scores for boys or girls, relational aggression scores for boys or girls,

and overt aggression scores for boys or girls were correlated with emotional distress

responses to the perceived overt aggression and relational aggression peer conflict stories.

In the data from the same one-way ANOVA used in Hypothesis 3, twelve groups were

entered by sex, subscale of social behavior, and story type. Since the one-way ANOVA

was significant, the same Tukey comparisons made with the other groups for Hypothesis

3 looked at this significance. The Tukey results demonstrate a 99% assurance that there

was a significant difference between one group and other groups studied. Pro-social girls

reading relational aggression stories were found to be significantly less distressed than

five other groups measured in the study. The five other groups exhibiting significantly

more distress than pro-social girls when reading relational aggression stories were:

1. Overtly aggressive girls reading overt aggression stories(GOVOV);

2. Relationally aggressive girls reading overt aggression stories(GREOV);

3. Pro-social boys reading overt aggression stories(BPOOV);

4. Overtly aggressive boys reading overt aggression stories(BOVOV); and,

5. Relationally aggressive boys reading overt aggression stories(BREOV).

Table 4.3 shows Tukey comparisons for all groups. The 12 variable combinations are

listed by abbreviations for sex (G or B), Peer nomination subscale (PRosocial, OVert or

RElational), and story type (OVert or RElational).

Table 4.3
Tukey Comparisons for All Variables


```
                                 Individual 95% CIs For Mean Based on
                                 Pooled StDev
Variable    N     Mean   StDev   -+---------+---------+---------+--------
GPROV      18   11.500   1.724            (------*-----)
GPRRE      17    9.824   2.099   (-----*------)
GOVOV      11   13.182   2.228                    (-------*-------)
GOVRE      13   11.538   2.106           (-------*-------)
GREOV      13   12.692   1.974                 (-------*------)
GRERE      15   11.600   1.993            (------*------)
BPROV      23   12.696   1.845                  (-----*----)
BPRRE      20   10.900   1.889        (------*-----)
BOVOV      19   12.947   2.677                  (-----*------)
BOVRE      16   12.188   1.905              (------*------)
BREOV      18   13.000   2.765                  (------*-----)
BRERE      16   11.813   1.834             (------*------)
                                 -+---------+---------+---------+--------
                                 9.0      10.5      12.0      13.5
```
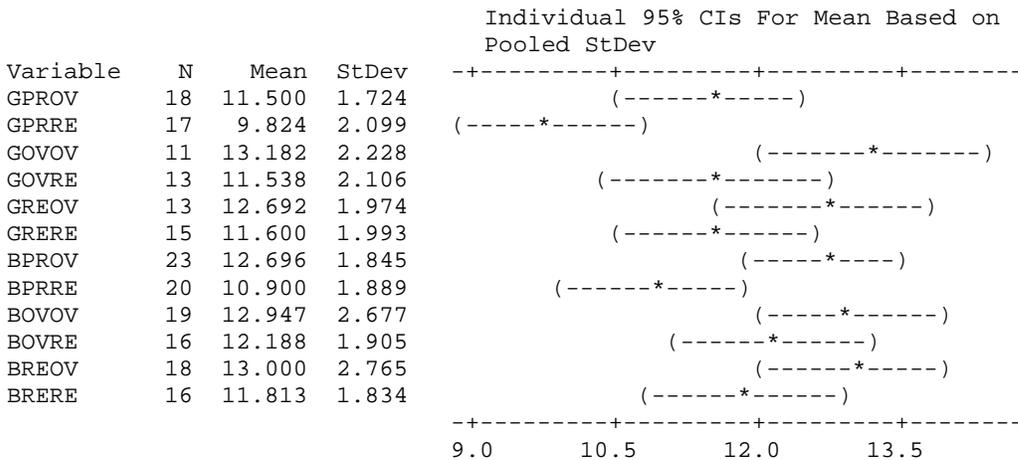
Although no hypothesis was presented in which the independent variable of sex was compared with the dependent variable of pro-social behavior, this study also found that girls are more significantly pro-social than boys. The analysis resulted in a *t= 4.969,* and a *p= .000.*

Summary

This chapter contained a description of the subjects in this study of aggression, sex, and emotional distress. The results of the analysis delineated the descriptive statistics relevant to the study. A one-way ANOVA, Tukey comparisons, and *t*-tests addressed the research questions and related hypotheses, finding the study to be significant when comparing variables within two of the four hypotheses. Chapter 5 presents a discussion of these results and suggests reasons for the findings.

Chapter 5

Discussion

This study examined the relationship between forms of aggressive and non-aggressive behaviors of boys and girls and emotional distress perceived over stories involving overt aggression and relational aggression. Results reported in chapter 4 were significant in two areas. First, boys were found to be significantly more overtly aggressive than girls; second, pro-social girls' reading of relational aggression stories led to less emotional distress than was found in five of the twelve groups compared.

These results add to the literature on aggression, sex differences, and emotional distress, which shows inconsistent conclusions compared to early studies (Crick, 1995). First, Crick's (1995) study of forms of aggression indicated that relational aggression is a distinct form of aggression from overt aggression or non-aggressive behavior. The current study confirms that relational aggression is a distinct form of aggression from pro-social behavior and overt aggression as measured by the Peer Nomination form used. Also, Crick's 1995 study indicated that relational aggression, salient for both boys and girls, is the preferred aggression of girls. The current study shows that relational aggression was similar for both boys and girls. Finally, this study adds to the research in showing that pro-social girls were significantly less emotionally distressed than five other groups of girls and boys in the study.

Variations in t-tests presented in chapter 4 demonstrate that while boys were identified as more overtly aggressive than girls (t=8.283, p=.005), there was no

significant difference between boys and girls in reported relational aggression ($t=.649$, $p=.423$). A one-way ANOVA and Tukey showed no significant relationship between the independent variable, girls and boys, and the three dependent variables—relational aggression, overt aggression, and emotional distress. The ANOVA and Tukey comparisons did, however, demonstrate a significant difference between pro-social girls' reactions to relationally aggressive stories and five other groups identified in the study ($F=3.74$ and $p=.000$).

Conclusions

Four major conclusions can be drawn from this study that adds to the literature on aggression, sex, and emotional distress. First, boys demonstrated more physical aggression than girls. Second, there was no significant difference between boys and girls in reported relational aggression. Third, aggressive boys and girls demonstrated similar levels of emotional distress over both overt aggression and relational aggression stories. Finally, pro-social girls reading relational aggression stories were significantly less emotionally distressed than five groups compared in this study.

Overt Aggression

Boys demonstrated more physical aggression than girls, perhaps due to both physiological and psychological factors (Crick & Grotpeter, 1995) as well as societal norms for boys versus girls (Crick et al., 1996). It may also reflect the difficulty experienced by boys in inhibiting action when angry, as discussed by Archer (2004).

The results of this study support the study of sex differences in bullying conducted by Baldry (2004), which suggests that boys are more likely to use overt forms of aggression. Physically hurting, threatening, and taking belongings are among the

behaviors of physically aggressive boys in Baldry's 2004 research. He also indicated in that study that boys reported up to three times more incidences of direct aggression than girls, with physical aggression being seen as far more socially acceptable for boys than for girls.

Relational Aggression

Both boys and girls were viewed as displaying relationally aggressive behaviors. This less obvious form of aggression may be emerging as a preferred aggression type. It may meet the needs of both boys and girls, since it is not easily observed by adults. These results differ from the earlier results of Crick (1995), Crick and Grotpeter (1995), and Crick et al. (1996), who concluded that relational aggression was more prevalent in girls than in boys.

This study, when compared to the earlier research of Crick (1995) and colleagues (Crick & Werner; Crick et al., 2002) on relational aggression, suggests a possible trend toward boys viewing relational aggression more positively and becoming more socially adept at utilizing this form of aggression than was found in earlier studies. It also shows a trend toward boys being more emotionally distressed over relationally aggressive situations than was found in earlier studies (Crick et al., 2002).

Emotional Distress and Overt or Relational Aggression

Both relationally aggressive and overtly aggressive boys and girls demonstrate similar levels of emotional distress over situations of overt and relational aggression. For relational peer conflict stories, girls had a mean distress score of 10.56 and boys had a mean distress score of 11.12. For Overt Peer Conflict stories, girls had a mean distress score of 12.26 while the boys' mean was 12.98. Overtly aggressive girls had a mean of

13.18 over situations of overt aggression and overtly aggressive boys had a mean of

12.95. At the same time, relationally aggressive boys had a mean of 11.81 over relational

aggression situations and relationally aggressive girls had a mean of 11.60.

These results are similar to the findings of Shultz, Izard, and Bear (2004), in that

the relationship between emotional processing was similar for boys and girls, but the

strength of the association varied depending on the type of story and whether the boy or

girl was identified as relationally aggressive or overtly aggressive. Since both boys and

girls were moderately to highly emotionally distressed, the implications for adjustment

are equally strong for aggressive boys and girls.

Pro-social Behavior and Emotional Distress

Perhaps the most significant finding in this study is that pro-social girls, when

presented with situations of relational aggression, were significantly less distressed than

boys reading overt aggression stories. They were also less distressed than overtly

aggressive and relationally aggressive girls reading overt aggression stories. This could

suggest that pro-social girls have become more equipped to cope with relationally

aggressive situations. It could also suggest that recent attention to safety in situations of

bullying and aggression has sensitized both boys and girls to the potential harm of overtly

aggressive situations, causing an increase in emotional distress greater than that earlier

reported.

The fact that pro-social girls demonstrate less emotional distress over incidences

of relational aggression might suggest that pro-social girls possess internal psychological

mechanisms that are resilient to situations of relational aggression. This supports findings

from the Shultz, Izard, and Bear (2004) study, which suggests that the experience of

positive emotions facilitates adaptive development, friendlier interaction, and empathic response rather than an emotional response to potentially aggressive situations.

One possible impact on the results of this study could be the participation and ongoing social competence training provided through the longitudinal study of the Fast Track Program (Bierman, et al., 2004) since the 1990's, particularly the ongoing use of the PATHS curriculum (Greenberg, Kusche, & Mihalic, 1998) in the school district's elementary school. Another influence could be the follow up implementation of the Safe Schools Healthy Students project (Welsh, et al., 2003) that included the LIFT playground program (Eddy, Reid, & Fetrow, 2000) and the elementary Student Assistance Program (Welsh, et al., 2003). Finally, the Olweus Bullying Prevention Program (Olweus & Limber, 2002), implemented in 2002 may have affected the results of this study.

Implications for Educational Programming

Numerous programs including The Olweus Bullying Prevention Model (Olweus & Limber, 2002), PATHS (Greenberg, Kusche, & Mihalic, 1998), and LIFT (Eddy, Reid & Fetrow, 2000), have been developed to address aggression and bullying in the school (Horne et al., 2007), but have not diversified interventions needed for boys versus girls. The results of this study in conjunction with the literature suggest the need for attention to sex differences in planning programs to address the separate issues of boys and girls (Graves, 2007). Changes in the rates of violence among females is quickly approaching that of males, and sex-specific factors such as identity development, socialization, and relationship skills dictate the need for sex-specific intervention to prevent and treat issues of violence and aggression (Graves, 2007).

The current study found that overtly aggressive girls demonstrated similar levels of emotional distress over situations of overt aggression (a mean of 13.18) to overtly aggressive boys reacting to the same stories (a mean of 12.95). This study also found that boys were significantly more overtly aggressive than girls. Graves (2007) suggested that although fewer females display overt aggression than males, those who do so have more internalizing factors and risk factors than males and have poorer psychosocial outcomes in adulthood.

Since this study also showed a high level of emotional distress for overtly aggressive boys, interventions for overtly aggressive boys should focus on social dynamics and internal factors that influence social behavior and respond to societal expectations for boys to react physically to provocation. Boys need modeling for empathy building and attention to pro-social competence (Hawley, 2007).

This study found that relationally aggressive boys react with similar distress over situations of relational aggression, but that relationally aggressive boys are more emotionally distressed over situations of overt aggression than girls. This suggests that attention to both boys and girls is needed to raise awareness of relational aggression and how to cope with it, given the different internal factors and response patterns for boys versus girls.

Since the current study found that pro-social girls were significantly less emotionally distressed than five other groups, another focus for educational programming for girls could be on strengthening the role of pro-social girls as positive influences on overtly and relationally aggressive girls and as a positive influence on the reactive and relationally aggressive behavior of boys (Graves, 2007). The significant role of the

bystander in reducing bullying and aggression in schools has been the focus of prevention and intervention efforts in many schools(Olweus & Limber, 2002). Staff support for bystanders, both boys and girls, needs to be increased. Finally, more discussion needs to occur that relate to behaviors of children both at school and at home (Horne et al., 2007).

Adults must recognize and consider carefully the differences among boys and girls and respond and educate each child according to their individual needs. Efforts to increase resiliency in all students is essential to building a positive school climate and internal climate for all (Graves, 2007; Olweus & Limber, 2002). Recognition of the impact of both physical and relational aggression on children is necessary, whether each form of aggression is observed or not observed by an adult.

Study Limitations

The generalization of this study is limited due to the use of a convenience sampling of 4th-grade elementary students from one school district. Participant characteristics were not similar to the general population and there was limited access to a broad range of demographic variables. The participants were from a rural population that was virtually all Euro American. Almost half of the participants qualified for the Free or Reduced Lunch Program.

The reporting measures used are vulnerable to distortions causing response bias. The Peer Nominations Scale is a form of sociometric assessment, adding the limitations of age effects regarding the interpretation of peer behavior, and sex-role stereotyping. Efforts to obtain parental consent resulted in an *N* 25% less than the population.

Finally, recent events in the community involving domestic violence, including homicides, suicides, and arrests for drug abuse and trafficking along with incidences of physical aggression, may have affected the results of this study.

Implications for Future Research

This research is one step toward updating the complex and changing trends in aggression research presented in chapters 1 and 2. This concluding section offers suggestions for future research.

The results of this research as delineated in chapter 4 presents significant findings about differences and similarities between boys and girls in aggressive and pro-social behaviors. Suggestions for future research to further explore these issues follow.

1. The study of larger populations would provide more information to defend or negate the results found in this study.

2. Research focused on more specific emotional distress issues for boys versus girls would strengthen future study.

3. More research on sex differences and trends in aggressive behavior compared to societal norms for boys versus girls would inform the research on aggression.

4. More research on behavioral differences in response to perceived incidences of relational and overt aggression comparing pro-social girls and boys to relationally and overtly aggressive boys and girls is needed to understand possible trajectories of change.

5. Concurrent studies involving teacher and parent reports to compare results would confirm or negate the results of peer reports.

6.   Surveys and program evaluation tools are needed that include measures of relationally aggressive behavior.

7.   A longitudinal study of students surveyed could better assess trends in social behavior that affect aggressive responses and program effectiveness.

8.   Measures to assess empathy and response to incidences of aggression comparing boys and girls in real-life situations would provide information on sex differences.

<div align="center">*Summary*</div>

The study of aggression has historically focused on the aggression of boys, particularly overt aggression, until recent years. Since the early works of Feshbach (1969), little was done to initiate research on sex differences in aggression until Crick (1995) identified relational aggression as a distinct form of aggressive behavior, which she concluded to be the preferred form of aggression for girls. Since then, the study of aggression has attempted to address sex issues and forms of aggression, looking at a variety of issues that relate to internal factors such as adjustment and social competence, and external factors such as social norms and expectations.

Studies since the 1990s (Archer, 2004; Baldry, 2004; Conway, 2004; Finklehour, 2005; Warden et al., 2003) have demonstrated inconsistent findings about sex differences, including peer perceptions and internalizing conditions. This study, one of the few studies of a rural population, though comprised of a small cohort sample, adds to the research by suggesting that the norms for aggressive behavior may be shifting—that boys may be more relationally aggressive than earlier studies indicated. Finally, this study supports the literature that stresses the role of the bystander (Olweus & Limber,

2002) as crucial to addressing and decreasing aggression and bullying in youth by identifying pro-social girls as significantly less emotionally distressed over situations of relational aggression than other groups studied.

References

American Medical Association Delegates, R. Altman, MD (presenter). (2002). Bullying behaviors among children and adolescents. *Report 1 of the Council on Scientific Affairs,* Reference Committee D, 1–22.

American Academy of Child and Adolescent Psychiatry. (2001). Bullying. AACAP Facts For Families # 80. Accessed November, 2001, from http://www.aacap.org/publications/factsfam/80.htm.

Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology, 53*, 27–51.

Archer, J. (2001). A strategic approach to aggression. *Social Development, 10,* 267–271.

Archer, J. (2004). Sex differences in real-world settings: A meta-analytic review. *Review of General Psychology, 8*(4), 291–322.

Baldry, A. C. (2004). The impact of direct and indirect bullying on the mental and physical health of Italian youngsters. *Aggressive Behavior, 30,* 343–355.

Banks, R. (1997). *Bullying in schools.* ED407154.*ERIC Digest.* Champaign, IL. Accessed November 2001 from http://www.ed.gov/databases/ERIC_Digests/ed407154.html.

Berkowitz, L. (1993). *Aggression: Its causes, consequences, and control.* New York: Academic Press.

Bierman, K.L., Coie, J.D., Dodge, K.A., Foster, E.M., Greenberg, M.T. et al. (2004). The effects of the fast track program on serious problem outcomes at the end of elementary school. *Journal of Clinical Child & Adolescent Psychology, 33, 4,* 650-661.

Bjorqvist, K. (1994). Sex differences in physical, verbal, and indirect aggression. A review of research. *Sex roles, 30*, 177–188.

Bjorqvist, K. (2001). Different names, same issue. *Social Development, 10*, 272–274.

Bjorkqvist, K. (2003). A cross-cultural investigation of sex differences and developmental trends in regard to direct and indirect aggression: An ongoing research project. Accessed December 11, 2003 from http://www.vqsq.abo.fi/svf/up/indirect.htm

Bjoerkqvist, K., Lagerspetz, K. M. J., & Kaukianen, A. (1992). Do girls manipulate and boys fight? Developmental trends in regard to direct and indirect aggression. *Aggressive Behavior, 18,* 117–127.

Blanco, J. (2003). *Please stop laughing at me: One woman's inspirational story.* Avon, MA: Adams Media.

Boulton, M. J. & Smith, P. K. (1994). Bully/victim problems in middle-school children: Stability, self-perceived competence, peer perceptions, and peer acceptance. *British Journal of Developmental Psychology, 12,* 315–329.

Brown, L. M., & Gilligham, C. (1992). *Meeting at the crossroads: Women's psychology and girls' development.* Amherst, MA: Harvard University Press.

Centers for Disease Control. (2002). *Facts about violence among youth and violence in the school.* Accessed on July 20, 2002 from http://www.cdc.gov/ncipc/factsheets/schoolvi.htm

Center for the Study of the Prevention of Violence. (2002–2004). *Blueprints for violence prevention: Model programs.* Accessed from http://www.colorado.edu/cspv/blueprints/

Coie, J. D., & Dodge, K. A. (1983). Continuities and change in children's social status: A five-year longitudinal study. *Merrill-Palmer Quarterly, 29*, 261–282.

Coie, J. D., & Dodge, K. A. (1998). Aggression and antisocial behavior. In N. Eisenberg (Ed.), *Child psychology*: Vol. *Social, emotional, and personality development*, 5th ed. (pp. 3, 779–862). New York: Wiley.

Coie, J. D., Dodge, K. A. & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology, 18*, 557–570.

Coloroso, B. (2003). *The bully, the bullied, and the bystander.* New York: Harper Collins.

Conner, D. F., Melloni, R. H., & Harrison, R. J. (1998). Overt categorical aggression in referred children and adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 37*(1), 66-73.

Conway, A. M. (2004). Girls, aggression, and emotional regulation. *American Journal of Orthopsychiatry, 75*(2), 334–339.

Cornell, D.G., Sheras, P.L., & Cole, J.C. (2006). Assessment of bullying. In S.R. Jimerson & M.J. Furlong (Eds.), *Handbook of school violence and school safety: From research to practice* (pp. 191-209). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Cox, K. (2003). *Relational aggressor: The new bully on the block*. Retrieved September 7, 2003 from http.//www.hevanet.com/kort/AGGRESS1.HTM

Crain, M. M., Finch, C. L., & Foster, S. L. (2005). The relevance of the social information processing model for understanding relational aggression in girls. *Merrill-Palmer Quarterly, 51*(2), 213-249.

Crick, N. R. (1995). Relational aggression: The role of intent attributions, feelings of distress, and provocation type. *Development and Psychopathology, 7,* 313–322.

Crick, N. R. (1996). The role of overt aggression, relational aggression, and pro social behavior in the prediction of children's future social adjustment. *Child Development, 67,* 2317–2327.

Crick, N. R. (1997). Engagement in gender normative versus non normative forms of aggression: Links to social–psychological adjustment. *Developmental Psychology, 33*(4), 610–617.

Crick, N. R., Bigbee, M. A. & Howes, C.(1996). Gender differences in children's normative beliefs about aggression: How do I hurt thee? Let me count the ways. *Child Development, 67,* 1003–1014.

Crick, N. R., Casas, J. F. & Nelson, D. A. (2002).Toward a more comprehensive understanding of maltreatment: Studies of relational victimization. *Current Directions in Psychological Science, 11,3,* 98-101.

Crick, N. R. & Dodge, K. A.(1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin, 115*, 74–101.

Crick, N. R., & Dodge, K. A.(1996). Social information-processing mechanisms in reactive and proactive aggression. *Child Development, 67,* 993–1002.

Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66,* 710–722.

Crick, N. R., Grotpeter, J. K.,& Bigbee, M. A.(2002). Relationally and physically aggressive children's intent attributions and feelings of distress for relational and instrumental peer provocations. *Child Development, 73*(4), 1134–1142.

Crick, N. R., & Nelson, D.A. (2002). Relational and physical victimization within friendships: Nobody told me there'd be friends like these. *Journal of Abnormal Child Psychology, 30*(6), 599-607.

Crick, N. R., & Rose, A. J. (2001). Toward a gender-balanced approach to the study of social-emotional development: A look at relational aggression. In P. H. Miller, & E. K. Scholnick (Eds.), *Toward a feminist developmental psychology* (pp. 153–168). New York: Routledge.

Crick, N. R., & Werner, N. E. (1998). Response decision processes in relational and overt aggression. *Child Development, 69*(6), 1630–1639.

Crick, N. R., Werner, N. E., Casas, J. F., O'Brien, K. M., Nelson, D. A., Grotpeter, J. K., et al. (1999). Childhood aggression and gender: A new look at an old problem. In D. Bernstein (Ed.), Nebraska symposium on motivation. Lincoln, NE: University of Nebraska Press.

DeAngelis, T. (2003). Girls use a different kind of weapon. *Monitor on Psychology, 34*(7). Accessed on September 7, 2003 from http://www.apa.org/monitor/julaug03/girls.html?CFID=2283846&CFTOKEN=35 901489

Dodge, K. A. (2001). The science of youth violence prevention. *American Journal of Preventive Medicine, 20*(1S), 63–70.

Dodge, K. A., Lansford, J. E., Burks, V. S., Bates, J. E., Pettit, G. S., Fontaine, R. et al. (2003). Peer rejection and social information-processing factors in the development of aggressive behavior problems in children. *Child Development, 74*(2), 374-393.

Eddy, J.M., Reid, J.B., & Fetrow, R. A. (2000). An elementary school-base prevention program targeting modifiable antecedents of youth delinquency and violence. *Journal of Emotional and Behavioral Disorders, 8, 3,* 165-176.

Feshbach, N. D. (1969). Sex differences in children's modes of aggressive responses toward others. *Merrill-Palmer Quarterly, 15,* 249–258.

Fitzgerald, P., & Asher, S.R. (1987). Aggressive-rejected children's attributional biases about liked and disliked peers. Paper presented at the annual meeting of the American Psychological Association, New York.

Finklehor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005). The victimization of children and youth: A comprehensive national survey. *Child Maltreatment, 10*(1), 5–25.

Flemming, A. R. (2003). *Little girls' secret*. Retrieved September 7, 2003, from www.washingtontimes.com.

Forero, R., McLellan, L. Rissel, C., & Bauman, A. (1999). Bullying behavior and prosocial health among school students in New South Wales, Australia: Cross sectional survey. *British Medical Journal, 319*, 344–348.

Fox, C., & Boulton, M. (2003). Evaluating the effectiveness of a social skills training (SST) programme for victims of bullying. *Educational Research, 45,* 231-247.

Garrity, C., Jens, K., Porter, W., Sager, N., & Short-Camilli, C. (2000). *Bully proofing your school: A comprehensive approach for elementary schools.* Longmont, CO: Sopris West.

Gianetti, C.C., & Sagarese, M. (2001). *Cliques: 8 steps to help your child survive the social jungle.* New York: Broadway Books.

Gini, G. (2006). Bullying as a social process: The role of group membership in students' perceptions of inner-group aggression at school. *Journal of School Psychology, 44,* 51–65.

Graves, K. N. (2007). Not always sugar and spice: Expanding theoretical and functional explanations for why females aggress. *Aggression and Violent Behavior, 12,* 131–140.

Greenberg, M.T., Kusche, C. & Mihalic, S. F. (1998). Blueprints for Violence Prevention. Book Ten: Promoting Alternative Thinking Strategies (PATHS), Boulder, CO: Center for the Study and Prevention of Violence.

Griffin, R. S., & Gross, A. M. (2004). Childhood bullying: Current empirical findings and future directions for research. *Aggression and Violent Behavior, 9,* 379–400.

Grotpeter, J. K., & Crick, N. A. (1996).Relational aggression, overt aggression and friendships. *Child Development, 67*, 2328–2338.

Hawley, P. H. (2007). Social dominance in childhood and adolescence: Why social competence and aggression may go hand in hand. In *Aggression and adaptation: The bright side to bad behavior* (pp. 1–29). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Hawley, P.H., Little, T.D., & Card, N. A. (2008). The myth of the alpha male: A new look at dominance-related beliefs and behaviors among adolescent males and females. *International Journal of Behavioral Development, 12, 1,* 76-88.

Hennington, C., Hughes, J. N., Cavell, T. A. & Thompson, B. (1998). The role of relational aggression in identifying aggressive boys and girls. *Journal of School Psychology, 36*, 457–477.

Henricsson, L., & Rydell, A. (2004). Elementary school children with behavior problems: Teacher-child relationships and self-perception. A prospective study. *Merrill-Palmer Quarterly, 50*(2), 111–138.

Heppner, P. P., Kivlighan, D. M., & Wampold, B. E. (1992). *Research design in counseling.* San Francisco, CA: Brooks Cole.

Horne, A. M., Stoddard, J. L., & Bell, C. D. (2007). Group approaches to reducing aggression and bullying in schools. *Group Dynamics: Theory, Research, and Practice, 11*(4), 262–271.

Kumpulainen, K., Rasanen, E., Henttonen, I., Almqvist, F., kresanov, K., Linna, S.L., et al. (1998). Bullying and psychiatric symptoms among elementary school age children. *Child Abuse and Neglect, 22,* 705–717.

Lemerise, E. A., & Arsenio, W. F. (2000). An integrated model of emotion processes and cognition in social information processing. *Child Development, 71,* 107–118.

McMill, J. H. & Schumann, S. (2001). *Research in education, Fifth edition.* New York: Longman.

Merrell, K. W. (2001). Assessment of children's social skills: Recent developments, best practices, new directions. *Exceptionality, 9*, 3–18.

Merrell, K. W. (2003). *Behavioral, social, and emotional assessment of children and adolescents*. Mahwah, NJ: Erlbaum.

Merrell, K. W., Buchanan, R., & Tran, O. K.(2006). Relational aggression in children and adolescents: A review with implications for school settings. *Psychology in the Schools, 43*(3), 345–360.

Messick, J. (Executive Producer), Michaels, L. (Producer), Fey, T. (Writer), & Waters, L. (Director). (2004). *Mean Girls* {Motion Picture}.United States: Paramount Pictures.

Mullin-Rindler, N. (2003). Relational aggression and bullying: It's more than just a girl thing. *Wellesley Centers for Women,* Wellesley College online.

Murphy, L. (2003). *Gender differences in aggression within adolescent peer groups*. Accessed on December 11, 2003 from http:// inside. bard.edu/ academic/specialproj/darling/bullying/group7/laurgrp7.html

Murry-Close, D., Ostrov, J.M., & Crick, N.R. (2007). A short-term longitudinal study of growth of relational aggression during middle childhood: Associations with gender, friendship intimacy, and internalizing problems. *Development and Psychopathology, 19,* 187-203.

Musher-Eizenman, D. R., Boxer, P., Danner, S., Dubow, E. F., Goldstein, S. E., & Heretick, M. L. (2004). Social-cognitive mediators of the relation of environmental and emotional regulation factors to children's aggression. *Aggressive Behavior, 30,* 389–408.

Nansel, T. R., Overpeck, M., Pilla, R. S., Ruan, W. J., Simons-Morton, B., & Scheidt, P. (2001). Bullying behaviors among U.S. youth: Prevalence and association with psychosocial adjustment. *JAMA, 285*(16), 2094–2100.

National Institute of Justice. (2000). Preventing school violence. Research Forum. US Department of Justice, Office of Justice Programs, Washington, DC.

National Institute of Mental Health. (1998). Thinking about violence in our schools. Discussion at the White House, August 3, 1998. Steven E. Hyman, MD, Director. Updated November 8, 1999. Accessed July 20, 2002 from http://www.nimh.nih.gov/publicat/violenceschools.cmf

National Institute of Mental Health. (1999). NIH expert panel on youth violence intervention research. Accessed on July 20, 2002 from http://www.nimh.nih.gov/childhp/expertpanel.cfm

National Institute of Mental Health. (2002).Child and adolescent violence research at the NIMH. Accessed July 20, 2002 from http://www.nimh.nih.gov/publicat/violencerefact.cfm

Nelson, D. A. & Crick, N. R. (1999). Rose-colored glasses: Examining the social information-processing of prosocial young adolescents. *Journal of Early Adolescence, 19*(1), 17–38.

Odgers, C. L. & Moretti, M. M. (2002). Aggressive and antisocial girls: Research updates and challenges. *International Journal of Forensic Mental Health, 1*(2), 103–119.

Ojala, K., & Nesdale, D. (2004). Bullying and social identity: The effects of group norms and threat on attitudes toward bullying. *British Journal of Developmental Psychology, 22*, 19–35.

Olweus, D. (1978). *Aggression in the schools: Bullies and whipping boys*. Washington, DC: Hemisphere.

Olweus, D. (1993). *Bullying at school*. Boston, MA: Blackwell.

Olweus, D., & Limber, S. (2002). *Blueprints for violence prevention.* Book Nine. Bullying Prevention Program. Denver, CO: Kendall Printing Company.

Ortiz, M. A. C. & Gandara, V. D. B.(2006). Study on the relations between temperament, aggression, and anger in children. *Aggressive Behavior, 32,* 207–215.

Pelligrini, A. D. (2007). Is aggression adaptive? Yes: Some kinds are and in some ways. In P.H. Hawley, T. D. Little, P. Rodkin (Eds.). *Aggression and adaptation: The bright side to bad behavior.* Mahwah, New Jersey: Psychology Press.

Pelligrini, A. D., Bartini, M., & Brooks, F. (1999). School bullies, victims, and aggressive victims: Factors relating to group affiliation and victimization in early adolescence. *Journal of Educational Psychology, 91*, 216–224.

Pelligrini, A. D., & Bartini, M. (2000). An empirical comparison of methods of sampling aggression and victimizations in school settings. *Journal of Educational Psychology, 92*(2), 360–366.

Pelligrini, A. D., & Long, J. D. (2003). A sexual selection theory longitudinal analysis of sexual segregation and integration in early adolescence. *Journal of Experimental Child Psychology, 85,* 257-278.

Pelligrini, A. D., & Roseth, C. J. (2006). Relational aggression and relationships in preschoolers: A discussion of methods, gender differences, and function. *Applied Developmental Psychology, 27,* 269-276.

Price, J. M., & Dodge, K. A. (1989). Reactive and proactive aggression in childhood: Relations to peer status and social context dimension. *Journal of Abnormal Child Psychology, 17*(4), 455–471.

Ramirez, J. M., & Andreu, J. M. (2006). Aggression and some related psychological constructs (anger, hostility, impulsivity): Some comments from a research project. *Neuroscience and Biobehavioral Reviews, 30*(3), 276–291.

Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin, 132*(1), 98–131.

Rose, A. J., Swenson, L. P., & Waller, E. M. (2004). Overt and relational aggression and perceived popularity: developmental differences in concurrent and prospective relations. *Developmental Psychology, 40*(3), 378–387.

Ross, D. M. (2003). *Childhood bullying, teasing, and violence: What school personnel, other professionals, and parents can do.* Second Edition. ISBN 1-55620-196-6. Fairfax, VA: American Counseling Association.

Rys, G. S., & Bear, G. G. (1997). Relational aggression and peer relations: Gender and development issues. *Merrill-Palmer Quarterly, 43,* 87–106.

Salmivalli, C., Lappalainen, M., & Lagerspetz, K. (1998). Stability and change of behavior in bullying in schools: A two-year follow-up. *Aggressive Behavior, 24*, 205–218.

Salmivalli, C., & Voeten, M. (2004). Connections between attitudes, group norms, and behaviour in bullying situations. *International Journal of Behavioral Development, 28*(3), 246–258.

Schultz, D., Izard, C. E., & Bear, G. (2004). Children's emotional processing: Relations to emotionality and aggression. *Development and Psychopathology, 16,* 371–387.

Schwartz, W. (1999). *Preventing violence by elementary school children*. ERIC ED 436602 Digest. New York, NY: ERIC Clearinghouse on Urban Education.

Simmons,R. (2002). *Odd girl out: The hidden culture of aggression in girls.* New York: Harcourt.

Smith, P. K., Morita, Y., Junger-Tas, J., Olweus, D., Catalano, R., & Slee, P. (1993). *The nature of school bullying.* London: Routledge.

Spivak, H., & Prothrow-Stith, D. (2001). The need to address bullying-An important component of violence prevention. *JAMA, 285*(16), 2131–2132.

Stringham, P. (1998). Violence anticipatory guidance. *Pediatric Clinics of North America, 45*(2), 439–448.

Surgeon General's Report. (2001). *Youth Violence: A report of the surgeon general.* Accessed on July 20, 2002 from http://www.surgeongeneral.gov/library/youthviolence/

Sutton, T., & Smith, P. K. (1999). Bullying as a group process: An adaptation of the participant role approach. *Aggressive Behavior, 25*, 97–111.

Thomas, S. P. (2003). Identifying and intervening with girls at risk for violence. *The Journal of School Nursing, 19*(3), 130–137.

Tomada, G., & Schneider, B. H. (1997). Relational aggression, gender, and peer acceptance: Invariance across culture, stability over time, and concordance among informants. *Developmental Psychology, 33*(4), 601–609.

Tremblay, R. E. (2002). Development of physical aggression from early childhood to adulthood. In R. E. Tremblay, R. G. Barr, & R. DeV. Peters (Eds.), *Encyclopedia on early childhood development (online).* Montreal, Quebec: Center of Excellence for Early Childhood Development.

Twemlow, S. W., Fonagy, P., & Sacco, F. C. (2001). An innovative psychodynamically influenced approached to reduce school violence. *Journal of the American Academy of Child and Adolescent Psychiatry*, *40*(3). Accessed on July 20, 2002 from: http://home.mdconsult.com/das/article/body/1/jorg=journal&source=MI&sp=118 22983&s.

Twemlow, S. W., Fonagy, P., Sacco, G. C., Gies, M. L., Evans, R., & Ewbank, R. (2001). Creating a peaceful school learning environment: A controlled study of an elementary school intervention to reduce violence. *American Journal of Psychiatry, 158,* 808–810.

Underwood, M. K., & Buhrmester, D. (2007). Friendship features and social exclusion: An observational study examining gender and social context, *Merrill-Palmer Quarterly, 53, 3,* 412-438.

Underwood, M. K., Galen, B. R. & Paquette, J. A. (2001). Top ten challenges for understanding aggression in children: Why can't we all just get along. *Social Development, 10*, 268–271.

Vreeman, R. C., & Carroll, A. E. (2007). A systematic review of school-based interventions to prevent bullying. *Archives of Pediatrics & Adolescent Medicine, 161, 1,* 78-88.

Violence Institute of New Jersey. (2002). Searchable inventory of instruments assessing violent behavior and related constructs in children and adolescents. Accessed from http://wwwumdnj.edu/vinjweb.

Warden, D., Cheyne, B., Christie, D., Fitzpatrick, H., & Reid, K. (2003). Assessing children's perceptions of prosocial and antisocial peer behaviour. *Educational Psychology, 23*(5), 547–567.

Welsh, J. A. & Domitrovich, C. E. (1999). Safe Schools, Healthy Students Grant Proposal. U.S. Department of Justice, Washington, DC.

Welsh, J., Domitrovich, C. E., Bierman, K., & Lang, J. (2003). Promoting safe schools and healthy students in rural Pennsylvania. *Psychology in the Schools, 40, 5,* 457-472.

Werner, N. E., & Crick, N. R. (2004). Maladaptive peer relationships and the development of relational and physical aggression during middle childhood. *Social Development, 13*(4), 495–514.

Young, E. L., Boye, A. E., & Nelson, D. A. (2006). Relational aggression: Understanding, identifying, and responding in schools. *Psychology in the Schools, 43*(3), 297–309.

APPENDIX A

Children's Social Behavior Scale (CSBS)

Children's Social Behavior Scale – Peer Report

The following measure was adapted from that described in:

Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66,* 710–722.

and was further reported in:

Crick, N. R., Bigbee, M. A., & Howes, C. (1996). Gender differences in children's normative beliefs about aggression: How do I hurt thee? Let me count the ways. *Child Development, 67,* 1003–1014.

The following is the most common peer nomination measure. Virtually all other peer nomination measures are variations of this particular one. For this particular version several changes were made. Two items were added to the overt aggression subscale and one item was dropped from both the relational aggression subscale and the prosocial behavior scale. Additionally, the loneliness/isolation scale was also dropped.

Subscales:
Overt Aggression: Items #4, 7, 10, 13, 15
Relational Aggression: Items #6, 9, 11, 14
Prosocial Behavior: Items #3, 5, 8, 12

Internal Uses:
None

Administration Instructions

To answer these questions, students will need a class list. It is suggested that this list be written alphabetically by first name. Each student is assigned a number (ID #). Students answer the questions using those identification numbers. Numbers may not be used more than once for any question. Numbers may only be reused on different questions. Under no circumstances may students use their number for answering any of the questions.

Answers to common student questions:
1. If they cannot think of three peers to put down for a certain question, ask them to think very hard about it, and help them go through the list. If it is clear that they are doing this and cannot come up with anyone, tell them they can write "no" in the blanks for this one question, but deal with this on an individual basis and quietly so children don't just do this and not give any response.
2. If they want to put down more than three peers, tell them to put down the three that are most applicable first (kids that do it the most). They can put additional children in blanks off to the right margin (again, deal with this on an individual basis).

Questions

1. Like
Which (of the people in your class/sixth graders) do you like to hang out with the most? Find their name and number on your class list. Write down their NUMBER in the first blank next to the word LIKE. Now pick another person you like to hang out with the most and put their NUMBER in the second blank next to the number 1. Now find a third person you like to hang out with the most and put their NUMBER in the last blank next to number 1.

2. Don't Like
Now, I want you to write down the number of someone you like to hang out with the least. You may like most of your classmates, but there may be some you like to hang out with less than others. Find the number of the person you like to hang out with the least and put their number in the blank next to number two and the words DON'T LIKE. Now find the number of another child who you like to hang out with the least and put their number in the second blank. Now find a third person and do the same thing.

3. Good Leader
Find the number of three kids who other students look up to and try to be like.

4. Hit Others
Now find the numbers of three classmates on your list who hit, kick, or punch others at school. Put their numbers in the three blanks next to the words HIT OTHERS.

5. Do Nice Things
Find the numbers of three people who say or do nice things for other classmates.

6. Keep Out
Find the numbers of three people, who when they are mad at a person, get even by keeping that person from being in their group of friends. EXAMPLES: 1) Say your going to a party with some friends, and someone says "lets invite some kid", we want you to pick someone who would say "NO, I don't want to invite that kid because I'm mad at them". 2) Pick someone who would say to a kid "I'm going to the mall with my friends & you can't come, because I'm mad at you".

7. Insults
Find the number of three people who say mean things to other classmates to insult them or put them down.

8. Helps Others Join
Find the number of three kids who help others join a group or make friends.

9. Ignores Others
Find the numbers of three people who, when they are mad at a person, ignore the person or stop talking to them.

10. Push Others
Find the numbers of three kids who push and shove others around.

11. Stop Liking
Find the number of three people who let their friends know that they will stop liking them unless the friends do what they want them to do.

12. Cheer Up Others
Find the number of three people who try to cheer up other classmates who are upset or sad about something. They try to make them feel happy again.

13. Will Beat Up
Find the number of three kids who tell others that they will beat them up unless the kids do what they say.

14. Keep People
Find the number of three people who try to exclude or keep certain people from being in their group when doing things together (like having lunch in the cafeteria or going to the movies). EXAMPLES: 1) Say you're in the cafeteria eating with your friends & someone says "lets ask that kid to sit with us" we want you to pick someone who would say "NO, I don't want that kid to sit with us". 2) Pick someone who would say to a kid "I'm going to the movies with my friends & you can't come".

15. Mean Names
Find the number of three people who call other classmates mean names.

NAME: _____   I.D. # _____   GRADE: _____

TEACHER'S NAME: _____   CIRCLE: BOY   GIRL

1. Like   _____   _____   _____

2. Don't Like   _____   _____   _____

3. Good Leader   _____   _____   _____

****

4. Hit Others   _____   _____   _____

5. Do Nice Things   _____   _____   _____

6. Keep Out   _____   _____   _____

7. Insults   _____   _____   _____

****

8. Help Others   _____   _____   _____

9. Ignores Others   _____   _____   _____

10. Push Others   _____   _____   _____

11. Stop Liking   _____   _____   _____

****

12. Cheer Up Others   _____   _____   _____

13. Will Beat Up   _____   _____   _____

14. Keep People   _____   _____   _____

15. Mean Names   _____   _____   _____

APPENDIX B

Intent Attributions and Feelings of Distress (IAFD)

Intent Attributions and Feelings of Distress

The following assessment of social information processing was reported in:

Crick, N. R., Grotpeter, J. K., & Bigbee, M. A. (2002). Relationally and physically aggressive children's intent attributions and feelings of distress for relational and instrument peer provocations. *Child Development, 73*(4), 1134–1142.

and

Nelson, D. A., & Crick, N. R. (1999). Rose-colored glasses: Examining the social information-processing of prosocial young adolescents. *Journal of Early Adolescence, 19*(1), 17–38.

which was developed from:

Crick, N. R., & Dodge, K. M. (1996). Social information-processing mechanisms in reactive and proactive aggression. *Child Development, 67,* 993–1002.

and

Crick, N. R. (1995). Relational aggression: The role of intent attributions, feelings of distress, and provocation type. *Development and Pathology, 7,* 313–322.

In this measure the child is asked to read 10 hypothetical stories, five of which are Instrumental Peer Conflicts with the remaining five being Relational Peer Conflicts. The intent of the aggressor in the stories is ambiguous. Following each story a number of questions are asked. The first two questions assess intent (e.g. was the event in the story done on purpose). The third question asks about the child's emotional response to the story.

This version is for children in early middle childhood.
Subscales:
Instrumental Aggression: Radio Story, Milk Story, Shoes Story, Paint Story, Race Story
Relational Aggression: Playground Story, Hallway Story, Party Story, Lunch Story, Walk Story
Internal Uses:
Project KIDs
- Target child no sibling data packet, 1997
- Target child with female sibling data packet, 1997
- Target child with male sibling data packet, 1997
- Sibling with female target child data packet, 1997
- Sibling with male target child data packet, 1997

Project KIDs
Target child no sibling data packet, 1998

Target child with female sibling data packet, 1998
Target child with male sibling data packet, 1998

Why Kids Do Thing

DIRECTIONS: You will be reading several stories. Pretend that the things that are happening in each story are happening to you. Then answer the questions after each story. Put a circle around your answer.

Radio Story

Imagine that you brought your new radio to school today. You saved up your allowance to buy the radio and you want to show it to the other kids at school. You let another kid play with it for a few minutes while you go get a drink of water. When you get back you realize that the kid has broken your brand new radio.

1. Why did the kid break your radio?

    a. The radio wasn't made well.

    b. It was an accident.

    c. The kid was mad at me.

    d. The kid was jealous of me.

2. In this story, do you think the kid was

    a. Trying to be mean?

    b. Not trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

    a. Not upset or mad at all.

    b. A little upset or mad.

    c. Very upset or mad.

Playground Story

  Imagine that you are looking for your friend on the playground. You can't wait to find your friend because you have an important secret to share. By the time you find your friend, your friend is already playing with someone else— a kid that you don't like very much.

1. Why did your friend play with someone else instead of you?

  a. My friend was mad at me.

  b. My friend didn't know that I wanted to play with them.

  c. My friend wanted to get back at me for something.

  d. My friend didn't see me on the playground.

2. In this story, do you think your friend was

  a. Trying to be mean?

  b. Not trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

  a. Not upset or mad at all.

  b. A little upset or mad.

  c. Very upset or mad.

Milk Story

Imagine that you are sitting at the lunch table at school, eating lunch. You look up and see another kid coming over to your table with a carton of milk. You turn around to eat your lunch, and the next thing that happens is that the kid spills the milk all over your back. The milk gets your shirt all wet.

1. Why did the kid get milk all over your back?

    a. The kid slipped on something.

    b. The kid just does stupid things like that to me.

    c. The kid wanted to make fun of me.

    d. The kid wasn't looking where they were going.

2. In this story, do you think that the kid was

    a. Trying to be mean?

    b. Not trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

    a. Not upset or mad at all.

    b. A little upset or mad.

    c. Very upset or mad.

Hallway Story

Imagine that you are standing in the hallway one morning at school. As you are standing there, two kids from your class walk by. As they walk by you, the two kids look at you, whisper something to each other and then they laugh.

1. Why did the two kids laugh when they walked by you?

    a. The kids were making fun of me.

    b. The kids were laughing at a joke one of them told.

    c. The kids were just having fun.

    d. The kids were trying to make me mad.

2. In this story, do you think that the two kids were

    a. Trying to be mean?

    b. Not trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

    a. Not upset or mad at all.

    b. A little upset or mad.

    c. Very upset or mad.

Shoes Story

Imagine that you are walking to school and you're wearing you new tennis shoes. You really like your new shoes and this is the first day you have worn them. Suddenly, you are bumped from behind by another kid. You stumble and fall into a mud puddle and your new shoes get muddy.

1. Why did the kid bump you from behind?

   a. The kid was being mean.

   b. The kid was fooling around and pushed too hard by accident.

   c. The kid was running down the street and didn't see me.

   d. The kid was trying to push me down.

2. In this story do you think that the kid was

   a. Trying to be mean?

   b. <u>Not</u> trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

   a. <u>Not</u> upset or mad at all.

   b. A little upset or mad.

   c. Very upset or mad.

Party Story

Imagine that you are in the bathroom one day after recess. While you are in there, two other kids from your class come in and start talking to each other. You hear one of the kids invite the other one to a birthday party. The kid says that there are going to be a lot of people at the party. You have not been invited to this party.

1. Why hasn't the kid invited you to the birthday party?

    a. The kid doesn't want me to come to the party.

    b. The kid hasn't had a chance to invite me yet.

    c. The kid is trying to get back at me for something.

    d. The kid was planning to invite me later.

2. In this story, do you think that the kid was

    a. Trying to be mean?

    b. <u>Not</u> trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

    a. <u>Not</u> upset or mad at all.

    b. A little upset or mad.

    c. Very upset or mad.

Paint Story

Imagine that you have just finished an art project for school. You've worked on it a long time and you're really proud of it. Another kid comes over to look at your project. The kid is holding a jar of paint. You turn away for a minute and when you look back the kid has spilled paint on your art project. You worked on the project for a long time and now it's ruined.

1. Why did the kid spill paint on your project?

    a. The kid is mean.

    b. The kid bumped into the paint by accident.

    c. The kid is kind of clumsy.

    d. The kid wanted to ruin my project.

2 In this story, do you think that the kid was

    a. Trying to be mean?

    b. Not trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

    a. Not upset or mad at all.

    b. A little upset or mad.

    c. Very upset or mad.

Lunch Story

Imagine that you are at lunch one day and looking for a place to sit. You see some kids you know at a table across the room. The kids are laughing and talking to each other and they look like they are having a good time. You walk over to their table. As soon as you sit down, the kids stop talking and no one says anything to you.

1. Why did the kids stop talking when you sat down?

    a. They were waiting for me to say something first.

    b. They didn't want to talk to me.

    c. They were saying mean things about me before I got there.

    d. They were finished talking.

2. In this story, do you think that the kids were

    a. Trying to be mean?

    b. <u>Not</u> trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

    a. <u>Not</u> upset or mad at all.

    b. A little upset or mad.

    c. Very upset or mad.

Race Story

Imagine that you are on the playground. You and some other kids are having a race. Another kid is standing on the side, bouncing a basketball. The next thing you realize is that the kid has bounced the ball and it rolls under your feet, making you fall. You skin your knee and someone else wins the race.

1. Why did the kid bounce the ball under your feet?

    a. The kid wanted to get back at me for something.

    b. The kid didn't see me coming.

    c. The ball accidentally got away from the kid.

    d. The kid wanted me to lose the race.

2. In this story, do you think that the kid was

    a. Trying to be mean?

    b. <u>Not</u> trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

    a. <u>Not</u> upset or mad at all.

    b. A little upset or mad.

    c. Very upset or mad.

Walk Story

Imagine that you are taking a walk in your neighborhood one day. After you walk a block or two, you see two kids that you know from school. You walk over to the kids and say "hi". The two kids act as if you are not there--- they don't say anything to you. Then they say something to each other that you can't hear and they walk the other way.

1. Why didn't the two kids say hello to you?

    a. They didn't see me standing there.

    b. They didn't hear me say hi first.

    c. They were mad at me about something.

    d. They don't like me.

2. In this story, do you think that the kids were

    a. Trying to be mean?

    b. Not trying to be mean?

3. How upset or mad would you be if the things in this story really happened to you?

    a. Not upset or mad at all.

    b. A little upset or mad.

    c. Very upset or mad.

APPENDIX C

Parental Recruitment and Consent Forms

(Parent Recruitment Letter)

Dear Parents/Guardians,

I am seeking the assistance of the 4th grade students at the school in completing 2 surveys on aggressive behaviors in schools. Your school administrators have granted their permission for this study to be conducted. The purpose of this letter is to provide you with information so you can make a decision to give or not give your son or daughter permission to participate in this study.

The two surveys for this study will specifically seek information on aggressive behavior, non-aggressive behavior, and student feelings about these types of situations that could occur in or around school. The purpose of this study is to understand these various behaviors and the feelings students might experience if faced with similar situation at school. Research assistants from Penn State University will hand out the survey questions to students in their classrooms. This study is NOT part of the Bullying Prevention efforts currently being conducted in the school district.

The surveys that your child will receive are part of a study conducted through Penn State University. This study has received permission to be conducted from Penn State University. All cooperation and participation in this study is strictly voluntary and permission to participate or not will in no way impact your child's grade or school standing. Those students who have parental/guardian consent will have a consent form read to them by the Penn State research assistants to reinforce the knowledge that participation is voluntary.

Students will be requested NOT to put their names on the surveys. Students may stop answering the survey questions at any time.

NO Tyrone school personnel will see surveys/ responses of individual students. I will see the surveys, but will not know which surveys were completed by any specific students.

For each child who returns a signed parental permission slip, $1 will be awarded to the student's class to be used later for a classroom treat for the whole class. The $1 will be awarded to the class based on the parent signature only, irregardless of whether you give your child permission to be involved or not.

If you have any questions at all about this study, please feel free to contact me at 814684-1342 or Dr. Richard Hazler at 814-863-2415. A summary of study results will be made available through the school if you would be interested in obtaining a copy. I hope you will take this opportunity to allow your child to have his/her input included in this important study. Thank you very much in advance for your assistance and cooperation.

Sincerely,

Dani Simmons, Primary Researcher

Parental Informed Consent Form for Social Science Research
The Pennsylvania State University

Title of Project: Influence of Aggression Styles or Variation, with Perceived
Emotional Distress

Principal Investigator: Danis T. Simmons, Graduate Student
c/o 331 Cedar Building
University Park, PA 16802
814-684-1342, extension 2706; dts121@psu.edu

Advisor: Richard J. Hazler, PhD.
331 Cedar Building
University Park, PA 16802
814-863-2415; rjh29email@psu.edu

Other Investigator(s):   Julie Carraciolo
Rachel Smith
Amy Finch
Emily Deemer

Purpose of Study: The purpose of this study is to identify styles of aggression in 4th grade children and emotional distress perceived in various types of situations.

Procedures to be followed: This study involves 2 surveys which will be completed in the classroom in two separate one hour sessions on the same day. Children given permission to participate will be asked to provide nominations of classmates who exhibit various aggressive and non aggressive behaviors in the first survey. In the second survey, students will be asked to respond to three questions about short stories presented to them. The questions will ask their view of the intent of the kid in the story, and their feelings about what happened in the story if it really happened to them.

Discomforts and Risks: Some children may feel uncomfortable answering questions about aggressive behavior and emotional distress. If there is any problem with completing either survey, your child is free to choose not to participate.

Benefits: Your child will benefit from this study by seeing how research is conducted, and learning the importance of their input into the study of aggression. There will be a long term benefit for children as the research community more clearly understands the distress involved in situations of bullying and aggression.

Duration: Each survey will take 1 hour to complete.

Statement of Confidentiality: Your child's participation in this research is completely voluntary and permission to participate or not will in no way impact your child's grades or school standing. Students are free to stop participating in the research at any time or to decline to answer any specific questions or engage in any survey procedure. Your child's participation in this research is strictly confidential. No one in the Tyrone Area School District or the principal investigator will have access to individual student responses. To ensure confidentiality, only a coded identification number will appear on information sheets. The principal researcher will not have access to the code. In the event of publication of this research, only group data will be used. The **Office for Human Research Protections and the Social Science Institutional Review Board (IRB)** at Penn State may review any records related to this project to ensure your child's rights are being protected properly. In the event of publication or presentation resulting from the research, no personally identifiable information will be shared.

Right to Ask Questions: You can ask any questions you may have about the research. Contact Dani Simmons at 684-1342, extension 2706 or Dr. Richard Hazler at 863-2415 with questions. You can also call these numbers if you have complaints or concerns about this research. If you have questions about your child's rights as a research participant, or concerns, general questions, or feel that the research has harmed your child, contact Penn State University's Office for Human Research Protections at (814) 865-1775. You may call this number if you cannot reach the research team or wish to talk with someone else. The purpose of the research and the students' role will be verbally explained to your child in the classroom by Pennsylvania State University Research Assistants. Any student questions will be answered at that time.

Your child will be given a copy of this signed and dated consent for your records.

_____
Your Child's name (Please Print)

_____   _____
Parent Signature   Date

_____   _____
Research Assistant Obtaining Consent   Date

APPENDIX D

Student Recruitment and Consent Forms

Student Recruitment /Assent Script
Parental Informed Consent Form Distribution
Hi, my name is _____. I am a research assistant from Penn State University.
I am here, today, to tell you about a study being completed by Penn State and to ask for your assistance in completing two surveys on aggressive behaviors in the school. All Fourth grade students are being invited to participate in this study being conducted through Penn State University in the next few weeks.

The purpose of the study is to understand various behaviors of boys and girls and the feelings you might have if you were faced with a situation that you think might involve aggressive behavior. The more we know about how aggressive behavior affects children at school, the more parents, schools, and other community organizations can do to try to help them at school to feel healthy and safe.

The survey questions will be read to students in their classrooms by research assistants from Penn State.

This study is NOT part of the Bullying Prevention efforts in the school district and you would be asked to NOT put your names on the surveys. No one from the school district will know how you have answered your surveys.

All cooperation and participation in this study is voluntary, meaning that you AND your parents have the right to agree or not agree to participate.
I will hand out envelopes that you will put in your homework folders and give to your parent(s) or legal guardian(s). The envelopes have a note in them that explains the study like I am explaining to you now, and what is called a Parental Informed Consent Form.
(Hand out envelopes at this time and ask students to take out their homework folders and place the envelopes inside where they and their parents can find them)
For each one of you who returns a signed permission slip, $1.00 will be awarded to your class to be used later for a classroom treat for the whole class. The $1.00 will be awarded to the class based on parent signature only, whether your parent gives permission for you to be involved or not.

Even if your parent says it is okay for you to participate in this study, if you feel uncomfortable for any reason on the day of the study, you can decide not to complete it and that will be okay.

Do you have any questions? I would be happy to answer them at this time.

(When finished) I would like to thank you for your time, today, and ask you to give the envelope to your parent(s)/guardian(s) tonight and return them signed as soon as possible.

Student Informed Consent Form

Title of Project: The Influence of Aggression: Styles or Variation and Perceived Emotional Distress

Persons in Charge: Danis T. Simmons, Med., Guidance Counselor at Tyrone Area Elementary School, Doctoral Candidate in Counselor Education; Richard J. Hazler, Ph.D., Associate Professor of Counselor Education

I have listened to the Penn State University people telling me about being a part of this study. I know that it is about Aggression in my school. I know that I will be asked to answer some questions about classmates and aggression and about emotional distress in surveys that will be done in class. I know that no one at school or my parents will see my answers. I know that I can stop at any time with no problem. If I feel like I am getting sad or upset during this study, I can tell the teacher, or my school counselor and they will help me right away.. I know that my parent/guardian said I can be in this study.

If I or any of my family has any questions, I know I can call Mrs. Simmons at 684-1342, extension 2706 and she will answer them.

I agree to take part in this study.

_____   _____
Student's Signature   Date

_____   _____
Researcher Signature   Date

I certify that the informed consent procedure has been followed, and that I have answered any questions from the participants above as fully as possible.

APPENDIX E

Means and Standard Deviations of the Sample Classes

Means and Standard Deviations of the Sample Classes

Data Table

	Relational Aggression	Overt Aggression	Pros-social Behavior	Overtly Distressing	Relationally Distressing
Class 1	Mean = .085 SD = .111	Mean = .083 SD = .141	Mean = .110 SD = .086	Mean = 12.52 SD = 1.36	Mean = 10.85 SD = 1.98
n=22					
Class 2	Mean = .088 SD = .067	Mean = .093 SD = .112	Mean = .094 SD = .080	Mean = 12.73 SD = 2.55	Mean = 11.64 SD = 1.79
n=22					
Class 3	Mean = .078 SD = .078	Mean = .061 SD = .085	Mean = .135 SD = .135	Mean = 12.93 SD = 1.44	Mean = 10.85 SD = 2.30
n=15					
Class 4	Mean = .086 SD = .094	Mean = .108 SD = .129	Mean = .105 SD = .093	Mean = 13.06 SD = 2.41	Mean = 12.06 SD = 2.39
n=18					
Class 5	Mean = .043 SD = .040	Mean = .045 SD = .065	Mean = .103 SD = .085	Mean = 11.82 SD = 2.14	Mean = 9.13 SD = 2.17
n =14					

Curriculum Vitae

Danis Temofonte Simmons

Education

Doctor of Education	The Pennsylvania State University Counselor Education: Elementary Minor: Early Childhood Education	May 2008
Master of Education	The Pennsylvania State University Counselor Education: Elementary Minor: Human Development	August 1980
Bachelor of Education	The Pennsylvania State University Counselor Education: Rehabilitation Minor: Human Development	March 1971

Professional Work Experience

Elementary School Counselor	Tyrone Area School District	1982–present
Case Manager	Blair County MR Services	1978–1979
Social Services Worker	Children's Center of Blair County	1976–1978
Youth Counseling Supervisor	Community Action Agency	1974–1976
Youth Counselor	Community Action Agency	1973
Social Services Worker	Head Start	1972–1973

Other Professional Experience

College Teaching:	Pennsylvania State University Co-taught Child Counseling course	1996–1998
PA School Counselor's Association Conference Co-Presenter		2000, 2001
Professional Teams:	Student Assistance Program	2003–present
	Bullying Prevention Core Team	2002–present
	Crisis Team	2002–present
	District Health Council	2004–present
	PANA	2005–present

Relevant Professional Training

Threat Assessment Training	2005
Child Abuse Trainer Training	2003
Student Assistance Training	2003
Olweus Training	2001

Honors and Awards

Gift of Time Award	1994
Outstanding Employee Recognition	1993